The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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Lectures at the Royal School of Mines.

FIRST PRINCIPLES OF CHEMISTRY.

Dr. FRANKLAND delivered his third lecture on "The Principles of Chemistry," in the lecture theatre, at South Kensington, on Monday, 16th inst. He said:—In our last lecture we learnt that hydrochloric acid gas is a compound, and can be divided into two simpler forms of matter, one of which you will remember was called chlorine, and the other was identical in character with the inflammable constituent of water—hydrogen. Having decomposed the hydrochloric acid by electric means, and found that it was composed of two equal volumes of the above two gases, we proceeded to verify this by synthetical experiments. We next examined ammonia gas, and found that it too was a compound, composed of two elements—hydrogen and nitrogen—the latter non-inflammable and a non-supporter of combustion. We likewise decomposed ammonia by means of a voltaic current, and obtained the component gases in the ratio of three volumes of hydrogen to one volume of nitrogen; in this case we were not able to verify our analytical results by any direct synthetical experiments. We pass on to-night to another remarkable substance which is met with in nature, and which will give us a still further insight into the methods employed by chemists in analysing new substances with which they may come in contact, to ascertain their composition and properties. We are going to take marsh gas, or fire-damp, that peculiar inflammable gas which so often causes such disastrous results in coal mines. It also constitutes more than one-half of our ordinary coal gas, but does not contribute towards its lighting quality. It is a product of putrefaction of vegetable matter, and you may easily collect it in large quantities in ponds and similar places in the country; or possibly, you might even obtain it from the Serpentine, or from some of the ponds in the neighbourhood of London. If vegetable organic matter, such as leaves, or twigs of trees—falls into water, and putrify or decay at the bottom, it will always, in so doing, generate a quantity of marsh gas, or fire-damp; and this gas accumulates under the slime and mud, and only ascends to the surface in large bubbles when the mud is stirred. So that by stirring up the mud of these ponds you will be able, by means of a cylinder such as you have seen me use for collecting gas in these lectures, to collect quantities of the marsh gas for yourselves. Let us examine its properties. Here is a jar filled with the gas, and you see at once that it is colourless and transparent, and, therefore, under ordinary circumstanstances, invisible gas. It is also tasteless and inodorous; you might breathe it for a long time without knowing it, and this constitutes the great danger, inasmuch as the sense of smell gives not the least indication of the proximity of the gas. Neither is it deleterious when breathed, unless present in very large quantities; after breathing it in large quantities the miners feel a lassitude and headache. It burns with a flame which does not differ so much from that of hydrogen, chiefly, however, in being a little more luminous; it does not support combustion, for it extinguishes a lighted taper if I plunge it into the gas, the taper being re-lighted at the mouth. Practically, we may call it a non-luminous flame. The gas is nearly insoluble in water, and so we cannot submit it to an electric current in the same way that we did hydrochloric gas and ammonia—by dissolving them first in water. We can, however, decompose this gas by passing through a quantity of it, enclosed in a tube over mercury, a series of electric sparks. Those who are sufficiently near will be able to see that as the experiments proceed a black solid deposit is formed in the upper portion of the tube; that is one of the constituents of the marsh gas, and is called carbon. The other constituent of marsh gas is, as you see, an invisible gas, and its volume is just double that of the original gas. On bringing the gas in the tube into contact with a lighted taper, we find it burns with the characteristic lambent, non-luminous flame of hydrogen—it is, indeed, hydrogen. So that we have decomposed this marsh gas into twice its volume of hydrogen, and a certain quantity of this solid carbon, which we cannot volatilise at any temperature, and which, therefore, we cannot measure in the state of gas. It is also possible to analyse the gas by chemical means, and to separate this carbon. I take a quantity of marsh gas in this large cylinder, and mix it with twice its volume of chlorine; then I apply a light, and you see dense clouds of black smoke, and a large quantity of carbon is deposited on the jar—the chlorine, combined with the hydrogen, to form hydrochloric acid—you might notice the white fumes, and drove out the carbon. Unfortunately, we cannot measure the volume of this carbon in the state of vapour, but, from consideration of the behaviour of carbon compounds, we have a right to assume that if we could measure it it would occupy the same volume as the oxygen we get out of the water—the volume of carbon would be half that of the original gas. Thus, from the decomposition of two volumes of marsh gas we obtain four volumes of hydrogen and one volume of carbon, so that it is a more complex gas than the others which we have operated on.

So far, then, we have established these facts, that two volumes of hydrochloric acid gas are composed of one volume of calorine and one of hydrogen; that two volumes of steam are composed of one of oxygen and two of hydrogen; two volumes of ammonia, of one of nitrogen and three of hydrogen; and two volumes of marsh gas, of one of carbon (as we assume) and four of hydrogen. We thus learn that chlorine combines with its own volume of hydrogen, and that oxygen, nitrogen, and carbon unite respectively with two, three, and four volumes of hydrogen; and the resulting volume of the compound gas in every case is always the same—*two* volumes—notwithstanding the increasing complexity; and that is a grand theoretical conclusion in analytical chemistry. In spirit of wine we have a body of still greater complexity, consisting of six volumes of hydrogen, ten of oxygen, and two of our hypothetical volumes of carbon vapour, and yet the whole of these when they combine form only two volumes of alcohol vapour.

But I want to take you still further on the road of experiment, to a substance of complexity greater than those we have dealt with; we will bring together equal volumes of ammonia and hydrochloric acid gas over mercury; a certain quantity of a solid white compound is produced which is called chlorine or muriate of ammonium, and the whole of the gases have disappeared, and the cylinder is full of mercury. We have, therefore, in this white compound one volume of nitrogen, four of hydrogen, and one of chlorine, so that the one volume of nitrogen here is united with five other volumes—four hydrogen, one chlorine. If time permitted we could carry our experiments on still further, and show that it is possible to make one volume of one element combine with no less than six volumes of another substance. If you examine the results we have obtained carefully you will be able to draw a further and very important conclusion from them; as regards the behaviour of these elements in chemical compounds, you will see that the cylorine in hydrochloric acid combines only with its own volume of hydrogen; but that oxygen in water—which has the same volume as the chlorine—combines with two volumes of hydrogen (and further experiments would prove that this holds good for other elements than hydrogen), so that oxygen appears to have twice the combining property as chlorine. For the same reason, nitrogen in ammonia has three times the combining power of chlorine, carbon has four times the power, while nitrogen in chloride of ammonium has five times the combining power of chlorine. All our experiments and our argument so far has been with volumes; it would be very instructive if we could now perform the same experiments with definite weights of the substances. This has been performed very carefully by chemists, and it has been found that:—

1 part by weight of hydrogen combine with 35·5 parts of chlorine to form 36·6 of hydrochloric acid.
2 parts hydrogen + 16 parts oxygen = 18 parts of water.
3 parts hydrogen + 14 parts nitrogen = 17 parts of ammonia.
4 parts hydrogen + 12 parts carbon = 16 parts of marsh gas.
4 parts hydrogen + 35·5 parts chlorine + 14 parts nitrogen = 53·5 parts of chloride of ammonium.

I hope the time will come when it will be possible for you to work out these facts for yourselves in a laboratory provided for the purpose.

We have up to the present time kept pretty closely to our facts, but now it is necessary that we should know something of chemical theory. It is the custom to speak disparagingly of all theory, but certainly chemistry would not have made such progress as it has done this last half-century except for theory. It is impossible for anyone to remember all, or a great part, of the facts which chemists are day by day accumulating, and therefore theory steps in here, and enables us to marshal these facts into something like order, and to apply them to the elucidation of new facts and to the arts. The human mind always strives to seek out and explain the causes of things, and hence arise hypothesis and theory. Chemistry would never have attained to its present position as an exact science without the assistance of theory. Hence the chemist is not satisfied with a mere knowledge of the fact that 35·5 parts by weight of chlorine combine with 1 of hydrogen, but he seeks to discover why it is that this weight, or some simple multiple of it, always occurs in all combinations of chlorine. Dalton suggested that chemical compounds were produced by the juxta-position of atoms, or elementary particles, which were incapable of being sub-divided; that each of the classes of atoms had its own especial weight; that, for example, an atom of chlorine is 35·5 times as heavy as one of hydrogen. We cannot find the absolute weight of any atom; nay, we are not absolutely certain that such atoms do really exist, and it does not alter the relation I have stated whether they exist or not. A jar of hydrogen represents, then, to the mind of the chemist a jar full of atoms of hydrogen, a jar of chlorine gas a jar full of atoms of chlorine, each of which weighs 35·5 times as much as those of hydrogen. And by means of these principles we can form an idea in our minds of what takes place in compounds; in marsh gas, for instance, four atoms of hydrogen are combined with one of carbon, and so on. By means of numerous experiments tables of the atomic weights of the different chemical elements have been constructed; and these numbers thus found are curiously related to another very interesting property of these chemical bodies—to the quality of heat which they contain at a certain definite temperature. You can understand how it is possible to have two bodies at the same temperature, and yet for one of them to contain more heat than the other, by conceiving a gallon of water and a pint of water both at the same temperature; evidently the gallon contains eight times as much heat as the pint. It is found that if you take equal weights of these elementary bodies they contain different amounts of heat; but that, if you take weights of the substances proportionate to their atomic weights, they will contain very nearly the same quantities of heat. Thus the numbers which the chemist obtains from his chemical experiments are confirmed by these physical considerations. What I said formerly about the combining powers of the volumes must also be true of the combining powers of the atoms.

MANCHESTER GEOLOGICAL SOCIETY.

WORKABLE DEPTH OF MINING, AND THE CAUSE OF EXPLOSIONS.

The opening meeting of the session was held at the Literary and Philosophical Society, on Tuesday. Prof. W. BOYD DAWKINS, the President of the society, was in the chair.

The PRESIDENT, in his opening address, said he proposed giving a short analysis of the most important additions to our knowledge since the last session, which occurred to him in the departments of the many-sided science of geology which related to mining, engineering, and terrestrial physics. First, as to the workable depth of coal. Since the delivery of the last address two facts of considerable value in coal mining had been ascertained. It would be in the memory of those who read the report of the Coal Commission of 1871 that the depth at which coal could be worked was fixed by the temperature of the blood, or 98°, at which, according to Dr. Burdon Sanderson, "labour is not practical, except for very short intervals, in the moist air which is generally met with in mines." The deepest workings which afforded data in coming to this conclusion were the Pendleton Pit, 2214 ft. deep; the Rosebridge Pit, 2376 ft.; and a colliery near Charleroi, in Belgium, 2640 ft. Since these facts were brought before the Commissioners another Belgian mine had been successfully carried to a greater depth than any of the above. He was informed by Mr. Hunt, F.R.S., that the colliery at Echelles de Simont Lambert du Charlye de Vivières was 1040 metres, or 3115 ft. "about three years ago." Thus the limit of 3420 ft. had been already surpassed, without, so far as he knew, any unusual difficulty having arisen from the temperature of such a nature as to cause the adoption of extraordinary means of ventilation. It seemed, therefore, very probable that the difficulties offered to sinking of mines at a greater depth even than 4000 feet could be overcome by the genius of our engineers, and that by means of increased ventilation and the widening of shafts the temperature might be reduced, so as to allow coal to be worked considerably below the limit chosen by the Commissioners in their estimate of the amount of coal available in this country. At all events, it was satisfactory to find that in Belgium coal was being worked now at a depth greater than any of our collieries by more than 1000 ft. On this question it was interesting to note in the last *Athenæum* that the Prussian engineers had bored at Sperenberg—25 miles south of Berlin—to a depth of more than 4040 ft. in the saliferous rocks, which they struck at a depth of 283 ft. He had next to refer to a cause of explosion in mines. To Mr. Galloway, one of Her Majesty's Inspectors of Mines, they were indebted for the discovery of the mode in which some of the worst explosions in collieries had been produced. In an elaborate paper, before the Royal Society, in May, 1874, he (Mr. Galloway) pointed out the intimate relation which existed in the cases that had come under his observation between the explostion of gas and the firing of shots. In the majority of cases the explosion was not due to the direct firing of the inflammable gas by the shot, but to the concussion of the air, or the sound-wave, which caused the flame of the safety-lamp to pass through the gauze and ignite the fire-damp, sometimes at a considerable distance from the point of firing. This position he supported by a series of carefully conducted experiments. The disaster at the Oaks Colliery, in 1866, when 334 men lost their lives; that at Ferndale, in 1867, when 170 were killed; and that at Seaham, in 1871, with a loss of 26 men, were among the most prominent instances which he brought forward of explosions traceable to the air-wave caused by the shot. If, then, this cause of explosion were fully recognised, the removal of all safety-lamps from those places in which they were surrounded by fire-damp when shots were fired would, beyond all doubt, considerably lessen the average number of explosions, and prevent loss of human life. The delusion that a safety-lamp was safe under all conditions had led to the sacrifice of many valuable lives, and the recognition of the fact that it was most dangerous when it was traversed by a wave of vibration in an atmosphere of fire-damp would certainly remove an element of peril in coal mining. This important truth was worthy of the careful attention of all men connected with the working of coal pits. (Hear, hear.) The Chairman then noticed Prof. Prestwich's recent paper on the construction of a tunnel between England and France; to the Sub-Wealden explorations at Netherfield, near Battle; to recent researches in regard to the source of volcanic heat; the ancient volcanoes in Scotland, and other topics of interest, and concluded by saying that the past year had been fruitful not merely in the invention of new theories, but also in the discovery of new facts which came home to every practical geologist. In the coming session might they not expect similar fruits? And was it too much to hope that the Manchester Geological Society would not be backward in adding to the general store of facts from which was distilled from time to time those truths which were a heritage to men, and a joy for ever? (Applause.)

A vote of thanks was passed to the President, for his address, on the motion of Mr. JOHN KNOWLES, seconded by Mr. AITKEN.

THE SOUTH MIDLAND INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.

A general meeting of this Institute was held on Wednesday at the Exchange, Wolverhampton, Mr. B. P. WALKER (the President) in the chair, and there were also present Messrs. D. W. Munroe, W. Underwood, W. J. Davies, J. Hodgkiss, T. Lees, J. Naylor, J. Farnworth, and D. W. Lees (secretary). The business was to discuss the paper by Mr. Cuss, C.E. "On the Economy of Fuel in Boiler Furnaces," which had been read at a recent meeting. The author was unable to attend, being detained in Sheffield, but his paper had been printed and circulated. At the request of the members the Chairman opened the discussion by reviewing the merits of Mr. Cuss's suggestions. He thought the greatest point in the paper was bringing before them in a short manner the sources from which enormous and well-known waste arose, and showing how by the application of different engines and boilers this might be more or less avoided. For instance, they were told by Mr. Cuss that in order to get the full effect of the fire a neither excessive nor deficient but a proper supply of air must be secured, and that in the first instance it must be heated. Of course this opened the question whether the heating would not require more coal than would be saved thereby. Besides, the passing of air along pipes through the chimney, as suggested by Mr. Cuss, would be as likely to diminish the draught as to negative any accruing benefit.

Next Mr. Cuss had declared that the ignited fuel must be brought into contact with a sufficient area of heating surface at the temperature required to maintain flame. This was not quite explicit, for if so short a boiler was employed that the fire got into the chimney the greater part of the heating power went up the chimney, and a great volume of flame passing beyond the damper would be making steam. There were two important conditions necessary for perfect combustion—that the coal should be thoroughly burned, and that that which passed beyond the damper should not be gas capable of being burned, nor should there be a larger quantity of air than was required. Mr. Cuss had estimated the loss by radiation at 20 per cent., but the President's experience was that such an estimation was much too high. The loss by cinders, which Mr. Cuss set down at 15 per cent., depended greatly upon the quality of coal used; with some the waste only amounted to 5 per cent. These two sources of loss should command general attention, and anyone who centred public notice upon them was doing a good service. Mr. Cuss seemed to want to convey that horizontal engines were necessary. He (the President) confessed that he was once quite of that opinion himself, but he had recently found that the Cornish boilers worked more economically, but they had their disadvantages.

To remedy these defects in losses by imperfect air supply many ingenious contrivances had been invented, notably that of Mr. Predo, which was a most successful improvement upon that introduced by Mr. Chas. Wye Williams, of Liverpool. The best mechanical feeder that had come under his observation was that of Mr. Dilwyn Smith. The President held Mr. Cuss's comparison between the fuel per nominal horse-power per hour used by non-condensing and non-expansive engines and Atlantic steamers was inapplicable, because the fuel employed by the latter was the best that could be bought. In Cornwall 90,000,000 lbs. of water had been raised by one bushel of coal, while in Staffordshire it had been so low as 19,000,000 to 20,000,000. This illustration relates to some years back, and the coal used in the former cost 30s. per ton, while the slack used in the latter was worth only 5s. He had, however, little doubt but that ordinary low pressure boilers were worked at double the necessary expensive. By adopting all the best improvements a saving of 481*l.* a year might be effected. The matter was, therefore, serious, and the President only regretted that it was not practicable to suggest some method by which existing engines could be cheaply and effectively improved.

In the discussion which followed the President's views were generally supported by the members.

The meeting was then made special, to select three mining engineers to serve as examiners for that district under the Mines Regulation Act, 1872. The Council had previously nominated Mr. Henry Johnson, Mr. David Peacock, Mr. Silas Bowkley, and Mr. Wm. Spruce. The opinion of the meeting was determined by ballot, and the voting was as follows:—Mr. Peacock, 6; Mr. Bowkley, 5; Mr. Johnson, 4; and Mr. Spruce, 2.

BLOWPIPE DETERMINATION OF SALTS AND MINERALS.

For the rapid determination of the approximate composition of minerals the blowpipe is, when ordinary care is used, thoroughly reliable, and at the same time most convenient for the practical man, owing to the extreme portability and compactness of the whole apparatus required for making the tests; and to facilitate the acquisition of the knowledge necessary for its successful use, Prof. Plympton, of the Polytechnic Institute, of Brooklyn, New York, has compiled a very useful little volume,* designed especially for the learner. In the first and second parts, which treat of the apparatus and reagents, and of the general examination, Sheerer and Blanford have been chiefly followed, whilst in the third part, in which the various methods for the determination of minerals, by the aid of the blowpipe are explained, Guerout's Guide Pratique, translated from the manual of Dr. Fuchs, of Heidelberg, has been taken as the basis, but throughout the volume Professor Plympton has introduced emendations and improvements of considerable importance, and which adapt the book to the requirements of English and American readers. It is remarked that, perhaps, during the last 50 years no department of chemistry has been so enriched as that relating to analysis by means of the blowpipe. Through the unwearied exertions of men of science the use of this instrument has arrived at such a degree of perfection that we have a right to term its use analysis "in the dry way," in contradiction to the analysis "in the wet way." The manipulations are so simple and expeditious, and the results so clear and characteristic, that the blowpipe analysis not only verifies and completes the results of analysis in the wet way, but it gives in many cases direct evidence of the presence or absence of many substances which would not be otherwise detected without a troublesome and tedious process, involving both prolixity and time; for instance, the detection of manganese in minerals.

It being essential to the blowpipist that he should be not only be well acquainted with the nature and use of the various pieces of apparatus, but that he should know which form is the most convenient and of greatest general utility, Prof. Plympton devotes a couple of dozen pages to the consideration of the utensils—the blowpipe, the lamp, the charcoal, and platinum supports, iron spoons, glass tubes, and other apparatus necessary; and then describes the reagents, and explains the method of testing their purity. It is gratifying to find that the author has not only adopted the modern chemical notation, but that he has also, in one or two cases, used the metric measures. It is a most remarkable circumstance that the Americans, usually so quick to recognise improvements, and so clever in making them themselves, should in the two important points of chemical notation, and the adoption of the metric system of weight and measures, have suffered themselves to be left so far behind by less progressive European nations. Even in England, the very hot bed of prejudice, the metric system, from its unquestionable superiority, has long since been adopted by the leading scientific and especially chemical writers, although the stupidity of the general public has not yet been overcome, and in Germany, where the relations with France have rendered anything of French origin particularly unpopular, the undoubted advantages of the metric system have led to the adoption of the exact half kilogramme as the Zollpfund, or unit of weight, the Zollcentner being 50 killogrammes, and the Ton 1000 killogrammes. Yet in America, where the existence of a decimal coinage renders the adoption of a corresponding system—the metric system—specially desirable, there is as much opposition as if the nation were antiquated and effete. Let us hope the time is not far distant when the metric system will become universal. Having been taught the use of the apparatus and reagents to be employed, the student is next introduced to the initratory analysis—the examinations with the glass tube, open tube, and charcoal in the platinum forceps, borax bead, microcosmic salt, and carbonate of soda; and the confirmatory examinations, ample tables being provided to facilitate his researches. In the third part, treating of the determination of minerals by the aid of the blowpipe, the various minerals are classed according to its behaviour on charcoal, whether it volatilises or burns, emits a given odour, gives off fames of antimony, coats the charcoal, or leaves a characteristic residue; to its behaviour with carbonate of soda, in the borax lead, or with cobalt solution; according to the effect produced upon it by hydrochloric acid, and so on, so that the group to which a mineral under examination belongs is readily ascertained, and there will be scarcely more difficulty in deciding which particular member of the group it is.

For the practical man requiring a comprehensive and portable volume few better than Prof. Plympton's could be recommended. The general character of Scherer and Blanford's is too well known and appreciated by professors and students to render any special commendation of the first and second parts necessary; whilst with regard to the third part, the arrangement is at once simple and excellent, it is concise, yet gives all the necessary information, leaving really nothing to be desired by those who take the book for their guide.

* "The Blowpipe; a Guide to its Use in the Determination of Salts and Minerals." Compiled from various sources by GEORGE W. PLYMPTON, C.E., M.A. New York: Van Nostrand, Murray and Warren-streets. London: Trübner and Co., Ludgate Hill.

PRACTICAL ANALYSIS.—Two useful manuals by Prof. Alfred B. Prescott, M.D., Professor of Organic and Applied Chemistry in the University of Michigan, are at present in the press, and will shortly be published by Mr. D. Van Nostrand, of New York (obtainable in this country through Messrs. Trübner and Co., Ludgate Hill), the first treating of the Chemical Examination of Alcoholic Liquors—a Manual of the Constituents of the Distilled Spirits and Fermented Liquors of Commerce, and Qualitative and Quantitative Determinations; the second

dealing with such portions of organic analysis as are more generally required—Outlines of Proximate Organic Analysis for the Identification, Separation, and Quantitative Determination of the more commonly occurring Organic Compounds. The professor being recognised as a clever teacher and sound chemist his works will, no doubt, meet a favourable reception.

Meetings of Public Companies.

RICHMOND CONSOLIDATED MINING COMPANY.

The fourth ordinary general meeting of shareholders was held at the City Terminus Hotel, on Wednesday,

Mr. JOHN ELLIOTT in the chair.

Mr. THOS. W. HALL (the secretary) read the notice convening the meeting. The directors' report was taken as read.

The CHAIRMAN said: Gentlemen, on the last occasion when I had the honour of addressing you our affairs were then, I think, sufficiently favourable to be a subject for congratulation, but they have so much improved since that time that you will not be surprised by our commencing our report to you by further congratulations—in fact, we have received news this morning which alone would justify these congratulations, if we had not had intervening news upon which we based them. There is one point to which I will at once direct your attention; in the predictions we made last year we calculated upon making a great saving in the future working of the mine, but those anticipations have not been fully realised, from causes which I will proceed to detail to you. In the first place those predictions were based upon calculations that the railway would be completed by the summer, and that we should have a reduction in the cost of fuel. If you bear in mind what a large proportion the cost of fuel bears to our gross costs (for we spent 75,000*l.* last year in charcoal), you will easily imagine that the increased price we have had to sustain has seriously diminished the profits which we ought to have made. As it is, we have made a profit of 91,000*l.*, but the gross returns have been 355,000*l.* in round numbers. I certainly fully expected that the ratio of profits to returns would have been very much greater this year, but there was an exceptional winter, which told upon us in many ways. In the first place it prevented the completion of the railway; it increased the price of stores and freights, both going to and coming from the mine, and it absolutely prevented the making of charcoal being commenced until two months later than is usually the case. The inhabitants of the district say that such a winter has not been known for 40 years. I, therefore, hope we shall not be subjected to a similar one in our time. But we had a contract based upon the calculations I told you of, and we expected to effect a great reduction in cost. We had a contract lasting for 18 months, at 27 cents a bushel, for charcoal. After the effects of the winter had been pretty well felt we found the men who made the contract were nearly ruined in the attempt to carry it out, and, therefore, we had to annul the contract, and to submit to an increase of price in order to get the charcoal at all. All the other mines in the neighbourhood were competitors with us for charcoal, and unless we had given an extra 6 cents per bushel we should not have got it at all. The amount we have thus paid for charcoal is 8000*l.* or 10,000*l.* in excess of what the contract price would be. That is a large reduction from the profits, but that is not the worst, for we found the men who were bringing the charcoal were bringing it in imperfect measures—in sacks containing 2½ bushels only instead of 3 bushels, and the neighbouring mines did not take notice of it in order to obtain supplies at all. That is one of the principal causes why the calculations which we had made for a reduction in the cost had not been fulfilled. In spite of all that, however, I may say that the ore has yielded so much better this year than last that it has nearly brought us up; in fact, we gained about ¼ per cent. on the whole over our former cost of production. Whereas last year we only made a return of $52 on the ton of ore, this year we have made a return of $58·59, which fetches us up again. I will read you a paragraph in the report which will quite explain, I think, the conditions under which I ventured to predict that we should have a good report: I am reading from the report we issued in the previous year—

"The attention of the board has been especially directed to the means of effecting a reduction in the present working expenses, a large proportion of which is due to the price of fuel, the cost of transit, the refining expenses, and commission upon the sale of bullion. No great reduction in the cost of fuel can be effected till the projected railway from Elcho, or some other station on the Central Pacific Railway, is constructed to Eureka; such a branch line would bring in charcoal from a much wider area at a reduced rate, and probably open up a supply of coal to supersede the use of charcoal. With the railway the saving in freight would be very considerable, and it will be advisable for the company to promote such a line by all the means within the scope of their power—the immediate saving, however, of expenses will be confined to improvements in smelting, and realising the bullion, refining, and, perhaps, by laying down a tramway from the mine to the reduction works."

Well, these conditions of saving we have not as yet been able to carry out, and, therefore, that deals with the question of why the promises held out to you, or at least the hopes held out to you, of a reduction in cost in relation to gross returns—why these have not been fully fulfilled. One of these supposed sources of saving I have already alluded to is the railway. We fully expected, from all the accounts sent to us, that the railway would have been opened by June; but there was great difficulty in raising the money, and it was commenced at a very late period of the year, and the result has been that the railway now has only been carried on as far as 50 miles, leaving 30 miles still to be completed next season. But those 30 miles are over very easy ground, and there are no engineering difficulties in the way, and the calculations made are that it will be opened early in the spring. From the way in which they talk about it I think we may safely calculate upon its being fully opened by next May or June. The next great source of saving we expected to carry out was in the refining process. That subject has occupied the attention of the board ever since Mr. Probert went out, in 1872. He has had various communications with the board about it, because when he got out there he found we were paying very enormously for freight, which, certainly, was greater from the various charges on the way, and at the refining works at New York, where we sent all our gross bullion to be refined and separated, and he strongly advised the board from the commencement to reduce for themselves. The result of all the calculations which he made had a very great influence on the board, who entertained the question at once, because they saw the vast importance of it, and when I tell you that at present we are paying $46 per ton upon our gross bullion before we get it refined and separated, and before we get it fit for the market, you will see what a great expense it is. Mr. Probert's calculations led us to believe that we could effect a saving of $20 per ton on the bullion by ourselves undertaking the refining process at Eureka. It was rather a question whether we should set up refining works at New York, but all the data we could obtain inclined us to the decision that Eureka was the proper place at which to commence operations. We did not go into the thing lightly, as in the first place we wanted to satisfy ourselves as to the permanence of the mine, because it would not be right to expend 15,000*l.* in the erection of works of this kind unless we were perfectly satisfied that the mine was of a character to ensure its duration. Mr. Hopkins reminds me that the cost was to be 12,000*l.*, I have mentioned 15,000*l.* as there are some additions for freight charges which will probably bring it up to the amount I have stated. It was a great question to entertain, and we took every possible precaution before we decided. When Mr. Probert returned we induced him to visit various refining works in this country, and he came back and satisfied us that there was a process so good that there were two or three refiners (in Newcastle-on-Tyne especially) who thought so highly of the process that they had determined to pull down their existing works and erect new ones. We then induced Mr. Probert to go out and inspect the refining works carried on by the German Government in the Hartz mountains; he made a survey of them, and gave us careful details and minute calculations as to all the cost attending it. From thence he went to Pontgibaud, where the new process is carried on in France by a company, and from thence he went to Marseilles, and inspected the establishment of Messrs. Luce, Fils, and Rozan, and obtained all the particulars. The result was that we perfectly satisfied ourselves that the process was not only the best in itself, but also that it was peculiarly adapted to the situation of our works. The zinc or desilvering process requires less plant than the Rozan process, but the zinc is so costly that the Rozan process was preferred; therefore we have decided that the Rozan process shall be adopted at our works. As soon as we could make up our minds fully we ordered the works at once, and they should have been out there so that they could be set up by the end of August, but, unfortunately, the arrangements we made with the steamer to carry them out (after making the contract with the captain) fell through, for when he saw the size of the castings he absolutely refused to take them on board, and we had to send the first lot by a sailing vessel, which caused great delay, and instead of commencing the refining process by the end of September the first part of the apparatus has barely arrived there yet. I suppose it is being set up by this time, but we shall not get the results, at least in this year, but I am happy to tell you that Mr. Probert anticipated the delay in its delivery by resorting to the other process, for we sent out four or five French workmen, and by their aid, and this rough apparatus, he has succeeded beyond his most sanguine anticipations in separating our ores on the spot, and in producing litharge, or oxide of lead, which is the great desideratum for flux in the ores, so that we are free from the risk of not finding sufficient lead for smelting purposes. The great want of the mine has been that it was deficient in lead; the average only gave about 17 per cent. of lead, whereas for good smelting purposes we wanted from 35 to 40 per cent., and, therefore, we have been obliged to purchase highly leaded ore. Occasionally we came across beds of carbonate, which enabled us to dispense with purchased ores; but, as a whole, we were dependent upon other mines for the supply of the flux necessary to bring down the considerable quantity of gold and silver which existed in the irony ore, but which, without the lead, goes away and is lost, for the present at all events, to the company; in fact, the estimate which Mr. Probert gave us the last time we had the pleasure of meeting him was that there was at least one quarter of a million in dollars in gold and silver lying in the "mat" beside the furnaces, and which could not be brought away because we had not sufficient lead to do it. You will, therefore, see the vast importance to us of obtaining litharge at a cheap rate; in fact we shall get the litharge for nothing, as it is one of the productions in smelting which is to be reduced back to lead at the New York refining works, where at present we send all our bullion. This litharge comes to us, therefore, almost free of cost, and it will have a most enormous influence upon our future profits. Mr. Probert estimates that we shall save at least $20 per ton; therefore, if you calculate what a saving of $20 per ton means upon the present number of tons treated you will see that there is 20,000*l.* saved upon the one item alone. (Loud cheers.) I think, therefore, now you will see why we have been a little disappointed in the anticipations that have been held out with respect to the reduction of our working costs; and you will also see in the causes I have detailed to you reasons why we may calculate with almost certainty in the future of overcoming these difficulties. After all, it seems very hard, when we take out of the mine 355,000*l.* sterling a-year, that out of that large amount we only get about one-fourth in actual profit. I hope in future that that one quarter will come up to one-half, if it does not exceed it; at any rate, there is a good prospect before us in that respect. (Cheers). I have not this year to tell you of any legal difficulties. When I last had the honour of addressing you we had a long discussion, and a long story to tell you of trials we had passed through, and the risks we had run, and the victories, I may say, which we had won (cheers); but, fortunately, on the present occasion there is nothing of that sort to inform you about. We have had a very peaceful year as far as lawyers are concerned; but we have had the elements to fight. There has been a great flood at Eureka, which caused great damage to most of the other mines, except our own—I should not say the mines were damaged, but the works; but our works are situated at a high point, and they almost escaped damage by the flood. You will notice in the accounts a small charge for the sum which was subscribed to relieve the difficulties which our poorer neighbours had to pass through owing to the effects of the flood. One or two of the streets of the town were entirely swept away, and Mr. Probert very properly at once subscribed $1000 upon our account; the Eureka, which itself sustained $20,000 damage, did the same; and Mr. Probert subscribed also; and it speaks well for the feeling of the town, that the assistance which was forthcoming was so liberal and prompt, that they returned the whole of the amount subscribed by the Eureka Company, on the ground that that company had itself sustained a very large loss; and they also returned to Mr. Probert his amount. They speak in good terms of the munificent donation this company made, therefore, I think you will agree with me that the $1000 was well bestowed. (Cheers.) The only real damage it did to us was, that it tore up the water pipes, but that has been announced in the report, and therefore I need not dwell upon it. No doubt, you will like to hear something of the progress which the mine has made. When Mr. Probert got out, at the end of June this year, he found the work of exploration had been most unaccountably stopped. They had been driving in a straight line, and had been driving through a bed of very poor stuff, without testing it right or left, as they had usually done. It so happened, for the second or third time in the history of the mine, that the lode which usually dipped at an angle of 60°, had lifted itself up, and had got horizontal. They drove through the horizontal stratum of irony ore, which was too poor to work, and our neighbours were kind enough to suppose that we had now come to the end of the Richmond Mine, and had run into valueless stuff, and that we should not find any more. In the first place I may tell you that this was not known to the directors at all for a considerable time, but if it had been known we had entire confidence in Mr. King's report, and in his predictions of what we might expect, for hitherto those predictions have been fulfilled in an extraordinary manner, and the same thing had occurred twice before. However, the ore had lifted horizontally, and had run through the irony ore, which frequently accompanies ore of that character; but as soon as Mr. Probert got out he put in drifts above and by the side, and immediately struck rich bodies of ore right and left upon the whole of the poor stuff which gave rise to the rumour that the mine was exhausted. They found a large body of good ore, on the top it was 40 ft. thick, the ore extending over it. He began to sink again, and that took this second dip, and he got a good ore, and the pipe got wider as it went down; that dissipates at once all the ideas as to the mine being exhausted, and in one letter he states that, even if the mine does not improve there are supposed to be 100,000 tons of reserves, from which of course this other reserve to which I have alluded has to be deducted; but even if you deduct one-third there are 60,000 tons of good ore alone in this one spot about which such awful reports had been raised. This is so far satisfactory, but it is not the whole of our satisfactory news, because in one point, before reaching the low level, Mr. Probert had observed a thin streak of ore coming in, and he thought it looked promising; he put on men to explore it, and in less than three weeks that had been developed down 70 ft. deep to 18 ft. in width, and by the last accounts we have they have driven in this direction 80 ft. more, carrying the same breast of ore, and they are taking out 40 tons of splendid carbonates daily. That was good news. (Cheers.) We shortly had better still, for in the continuation of the exploratory works, which he pushed on right and left (for, as I told you, he immediately put on men in every direction), fresh discoveries were made, and in his letter to us he says that there is ore in every direction. At the bottom of our great hoisting shaft they had run a drift of 100 yards, and had sunk a winze and come upon a body of ore, which it was almost too good to suppose was the Richmond ledge itself. But there was a splendid body of carbonates laid open; they have sunk 70 feet, and it is at the present time 30 feet wide; they raised upon it 40 feet, and there it was still, and the last report says that this is unquestionably the Richmond ledge, discovered 300 or 400 feet below where we originally traced it. So you cannot have more encouraging news; you have the knowledge that you have a very large body of reserves, you have the positive certainty that you have got the whole intervening mass of ore between the new point at which we have struck the lode, and the old point at which we traced it, and, therefore, you have all those reserves to add to previous reserves; and, best of all, you have this fact, that this ore which is discovered at this great depth assays $100 to the ton. You must bear in mind, however, that our returns are entirely based upon the fact that it takes just as much money to work a ton of $30 ore, as one of $100 ore, and, therefore, all our profits have been made hitherto upon $50 or $60 ore, and our costs would be the same whether we get $50 ore or $100 ore; but in the one case we make $15 per ton profit, and in the other we should make between $70 and $80 per ton profit. (Cheers.) Now, if the ore goes down at this great depth, it is only coming up to what we have all along been led to expect—that as the mine gained in depth it would gain in richness. That has been the experience of the Great Comstock lode; and when Mr. King issued the report of Feb. 10, 1873 (and I hope you have got copies of that report, as it is extremely valuable; I am myself always referring to it, as it is remarkable with what accuracy Mr. King predicted what has taken place, and in justice to him we should bear it in mind), in that report, and in subsequent visits Mr. King expressed to Mr. Probert his opinion that "this mine is the greatest in America next to the Comstock Mine." Now, I think, in this week's *Mining Journal* there is an account of what the Great Comstock has done; in the last two years they have made $30,000,000, as against $5,000,000 in the previous two years, having thus increased their profits sixfold in two years. There was also an article in the *Times* mentioning the marvellous production of that mine, and indicating that its profits were likely to be larger. It is something to stand next to such a mine as that. When Mr. King made his prediction he had not ascertained anything like the amount of richness which at the present time is laid open to us in the Richmond Mine, because at that time we were but a very little way below the old Look-out Mine, where we found the great chambers of ore. The Comstock Mine has been about 20 years in developing, and I do not think they were so far advanced in the first three years as the Richmond is now. I do not believe they paid any dividends for eight or nine years to the shareholders; they had, in fact, to keep working on, with great prospects before them, no doubt, but without profit, until they got down to a very great depth. They are down now about 600 ft., and we are only down 400 ft., and at that depth we are equal to what the Comstock was then. They are now returning 20,000 tons of ore monthly, which they are sending away, besides the quantity they supply to the quartz mill, for it is a good milling ore, and they get a larger proportion of profit, because we have to smelt our ores. I believe the assay of our ores very nearly comes up to what the Comstock is, therefore I think there is an encouraging feature in the fact that we are next to the Great Comstock. That is something to think of. I do not know there is much more that I have to tell you about. I have several letters here of Mr. Probert's, and, perhaps, some of the extracts will give a pretty good history of the progress of the mine, and if it is not occupying your time at too great length I will read some extracts. It is better to have it from his lips instead of mine, as he is on the spot, and describes all these discoveries. There is a letter dated Sept. 6 received on Sept. 28. One reason why I will read the extracts is because we have been accused of sending out sensational cablegrams; if we have to be accused of anything it is because we have kept back the full facts from you. We have not been disposed to state anything until we got the fullest possible information, and we have kept within the mark. You will have seen in the report that the cable returns have been exceeded by $14,000, and you will see by the report that the estimates upon which our last year's bullion statements were based have been exceeded by $2448. We were told that they were only estimates, and that they might be all false, but those estimates were based upon assays, and those assays had been proved accurate; therefore, you may go away with full confidence that the estimates this year will bear out the amount we have put upon them, and that they are not fictitious estimates, but real facts, upon which you may base your calculations. Well, in this letter of Sept. 6 he says:—

"The mine looks better and bigger every time I see it. The north ledge holds its own magnificently, while in the flat level in the bottom we have good ore over the whole 80 ft. (above the lowest stratum, which was so poor), rising towards the hanging-wall, which has not yet been struck, at least 40 ft. in one place, and in others it is probably still thicker. The chamber of ore will probably prove the largest in the mine, if not the richest; had it all been rich ore it would have been too good—upwards of 100,000 tons at the lowest estimate, but, of course, with the large admixture of iron this estimate must be reduced to a much more moderate figure."

You may form an opinion of the enormous find we have got when you bear in mind that it has gradually increased from 80 feet in the Look-out ground until it is now nearly 200 ft. wide. I suppose such a find was scarcely ever known before in the history of mining. I will not, however, trouble you with the details which Mr. Probert goes into, but I will take the next letter, which is dated Aug. 4:—

"I have been afraid to cable much lest I should be supposed to be sending sensational messages, but I have news that I consider most encouraging to give you to-day. First, my new discovery, the north lode continues to improve, and carries now some of the very best ore ever seen in the mine; moreover, it is clean ore, with no waste, and if the ledge goes on further than at present it will yield a good many thousand tons, according to Rossiter's estimate. It has been followed downwards about 60 ft., and is over 6 ft. wide at that depth."

By subsequent cablegrams we learn that this has been followed down, and it is 18 ft. wide at 50 ft. depth, and it is encouraging to us to find, as we have done, that the great lode itself, when it begins in this way, is almost sure to go on increasing as it goes down, and that has been the experience we have had all through—that our discoveries, if narrow at the top, have widened greatly as depth is obtained. He goes on:—

"A few days ago a bunch of ore was cut in the drift now being run south-easterly from the very bottom of the McGee shaft, 400 ft. down. This ore is very rich, assaying about $200 (in gold, silver, and lead), and more than 1 ton has been taken out. I have been watching it daily, almost hourly, hoping to be able to report by cable that we had cut the ledge 250 ft. below the bottom level, which if true would give us at once 400 ft. more of the lode to follow; this, however, I cannot venture to affirm yet, although it is extremely probable that the lode is at hand."

That is most important. Mr. Probert, as you will find, was very uncertain at first whether this could be our original Richmond ledge, but I want you to dwell upon the fact that if this is the Richmond ledge we have 400 ft. between where we struck it and where we left off. That is so important that you can scarcely think of it too much. (Cheers.) There is another letter, dated Sept. 19, in which he says:—

"I have not been able to get to the mine for three days, but when last there the bottom of the winze (30 ft. deep) in the 400 ft. drift from main shaft was in as fine galena and carbonate ore as any ever seen in the upper workings. I could not venture to affirm now that we have got the original ledge at this depth, but all the indications render it probable. In any case it is a splendid prospect for the future, and if it only continues to improve as it has done since we struck it there will soon be a large ledge developed. The other parts of the mine continue good."

By-the-bye it reminds me I had a letter from Mr. Corrigan, addressed to me as Chairman, in which he includes the original letter sent by the mine captain (Mr. Rossiter) to Mr. Probert, and it so corroborates all that has been done that I will read it:—

"The shaft in the 400 ft. level is richer than ever, the flat floor we went through the ledge is dipping at about an angle of 46°, and down about 10 ft. in shaft deeper than you have seen, and double as rich as when you were here. I must take back all that I have ever said about rich ores, the present beats all that I have ever seen in this mine."

The reason why Mr. Probert was not in the mine at the time was that he was laid up with the lead colic and was seriously ill, and, therefore, had not been able to go into the mine for a few days, and Mr. Rossiter wrote him this letter dated Oct. 18, 1874. You will see that we have a good promise in the discovery. On Sept. 23 Mr. Probert continues the history of these discoveries:—

"The discovery in the 400 ft. drift grows in importance daily; there is now an unmistakable ledge 3 ft. wide, and as rich as anything we have ever had above. The containing rock (forming the walls) is, however, so different from that in the higher levels that I hesitate to offer an opinion as its being the old Richard lode. The pitch is also in a different direction, but in one that is good for the company. Remember that there is at least 300 ft. (on the incline) of unexplored ground between this new ledge and the lowest level (the flat level), and it may turn out that the whole intervening space carries ore; it will take weeks, or even months, to determine this point. Meanwhile do not become too much excited at the prospect." That is a very good reminder certainly, because it is so promising that he thought we should go off our heads from it. The next I have to read to you is dated Oct. 22; that is after the letter of Mr. Rossiter, which I have just read to you. By subsequent information we learn that we have gone down still deeper on the discovery, and that the ore is widening as it goes down. Here is a letter dated Nov. 5, which came this morning, and he tells us that the patents are now deposited in the strong box of the company at Eureka. I may mention to you that one reason why we have not published the whole of the information which we received has been that it was not advisable to let the exact direction be known to the public here, because it would then have been known to the public on the other side the exact direction and bearings of the new discoveries we were making. If that had been done it is probable some trouble might have been caused by "outsiders," who might have gone ahead of us if they had got positive information of the way in which the lode was going, and have attempted to intercept us. No doubt it would have been costly to have sunk down 500 ft. on the chance of finding the ore; at all events it was deemed advisable not to state too frankly the bearings of these new discoveries. True our neighbours got alarmed, and were under the impression that we were running under their property. We knew that was not the case, but, by the mining laws, when they have a suspicion of anything of the kind they can obtain by legal authority the right to enter the mine for the purpose of determining for themselves. The Eureka Consolidated, with whom you had the dispute, if you will recollect, about the Look-out Mine last year, they settled with us that there should be a straight line between our respective properties, going to the earth's centre, and neither should transgress that line. There was an impression prevailing amongst some of our own men that we were running towards the boundary. From the study I had made of the map from time to time as it was added to, I thought that we were not running into their boundary. I am happy to tell you that Mr. Probert has succeeded in proving to them that such is the case, for he took their surveyor into the mine and allowed him to take the bearings, and he found that the nearest point which we had gone in that direction was 287 ft. away from their nearest boundary, and, the lode having turned at that point, we are every day getting further away from it right to the centre of the new ground. These facts should upset a good deal of the rumours which have been set about that we were running into a law suit with our neighbours. It never was so; it answered the purpose of some persons to spread the report, but you have conclusive proof that there is no truth in it. Mr. Probert says that in addition to taking the surveyor into the mine, that he might take the bearings, he allowed the surveyor to look over the mine to see our prospects, and the result was that the surveyor went away in delight with the prospects of the district, from the certainty afforded him that there was a grand future for a mining property in Eureka from the splendid sight which met his view in the workings, and he estimates that we had at least two years' reserves ahead in the very spot, a spot where we were told that we were going to exhaust the Richmond Mine. (Loud cheers.) Mr. Probert says he does not think there is quite so much as that, as a considerable proportion must be of a poor character; however, that is the surveyor's impression, and he has expressed that view since he came out of the mine. Mr. Probert says, "I told him in going out that I left him free to speak of the mine as he found it, as I did not wish him to conceal anything." I think I have now brought down the history of the mine to the present day. I do not know that I can add anything to what Mr. Probert has stated. I have not touched upon the accounts as yet, but I may say this about them, that our object has been to present them to you in a form that any shareholder may comprehend the exact position of the company. We have not gone into exact details, as that would have made a little volume instead of the papers, but we are prepared, if any shareholder has any question to ask, to give him any information he may require. I hope you have all studied the accounts, and are satisfied with them. I may, with the shareholders' permission, say a few words as to our policy in putting so large an amount to the wiping off of the liabilities of the company this time, but I may tell you that we feel ourselves strong enough to do it. We have given you this year 27½ per cent. as the profit for the year, and those who bought just previous to the conclusion of the previous year have really had 33½ per cent. Our profits of course would have allowed of a much larger distribution of dividend amongst you, but we had this point to consider. It is true that you authorised us by a resolution of February, 1873, to raise a floating capital of 50,000*l.* on debentures. When this mine was started you must bear in mind that we had only 15,000*l.*, after paying preliminary expenses, to carry on the property with as a working concern. The whole of this was absorbed in the construction of plant, which was immediately necessary to be put up, and we found that to complete these works and carry on operations with any probability of profit, we had to borrow at once about 32,000*l.* That was a heavy drain upon us, but it was necessary to do it, as we could not carry on the business without it, owing to the insufficiency of the working capital. Then came the new difficulties; we had very expensive works to put up, and very large explorations to make, and I may say these explorations, although a great deal is carried to construction account, should be considered as real construction works to a greater extent than we have taken credit for. So we have not abused your confidence. Instead of availing ourselves of the borrowing powers we have used our endeavours to keep down what we could have borrowed. We have paid off all debts, although until we accumulate a working capital we must always stand in debt for the amount we draw upon our bullion agent, but of course that is wiped off by subsequent profits; therefore, if you compare our position now with last year, you will see how very much better we stand in a financial point of view now than then. We have cleared off the 32,000*l.*, we have given you construction works, the ore is increased to four times the amount we had when we started, so that your prospects are at least four times greater than when we started the company. You have a vast amount of exploration works drove, you have a large shaft sunk 400 ft., you have the Lizette tunnel, and all paid for. I think that has placed us in a better and sounder position than to have distributed that extra 30,000*l.* amongst you, and have used our borrowing powers to have carried on the mine. (Cheers.) I am glad to hear your approval of that, for it shows that you are content with moderate dividends for a short time, until we accumulate a little capital to relieve us of the expense of paying 12 per cent. for the money which we have to overdraw. I may mention that 12 per cent. is the usual rate over there, and Mr. Meyers has behaved extremely well to us; in fact, in many cases if you go to a bank, you are charged 1½ per cent. per month. We have taken the wisest course; it is a little unpopular amongst some shareholders. (No, no). Well, it is satisfactory to learn that; I have heard some complaints that we have not divided more upon this occasion; we are all large shareholders ourselves, and we had to consider what was the best course, on the whole, and in the future. I believe we have a great future before us. It is not a mine to grab all we can get out of it, but we must consider how to work it best for the future. We want to establish it, in fact, as an investment of so sound a character that people will consider it as an investment, and not as a speculation, and I think we have taken the best course to do that. The profits last year, you will observe, were swelled very much between August and December, and we find, on looking over the bullion statements that that is likely to be the case this year. I cannot go into all the causes why that should be so, but it is simply the fact that at the end of the year we make better profits than at the beginning. You will find that the profits of the last two months are better even than we calculated upon last year. I think you will find that we are justified in commencing our report to you by congratulating you upon the improved prospects of the property. I am sure the more you examine into it, the more you will be satisfied that you have every reason to be so. (Loud cheers.) I now beg to move the adoption of the report and accounts.

Mr. HOPKINS (deputy-chairman) seconded the resolution.

Sir LEOPOLD HEATH said he was sure the shareholders must all be satisfied with the accounts which the Chairman had been enabled to give them, and the thanks of the shareholders were due to that gentleman, and also to the directors and officers of the company. There was one remark which he wished to make—and he made it in no spirit of hostility to the board—and that was that he should like to see the accounts in a somewhat more simple form, so that instead of his having four or five different accounts, they could have a simple account, showing all the receipts on one side, and all the expenditure on the other. There was another point, too, which he thought was worthy of their consideration, and that was with respect to the manner in which the expenditure on each year should be apportioned. However good this company was—and he was not for one moment going to cast doubt upon its excellence—still as it was a mining company, they could not look upon it as having that character of permanence which was possessed by a trading, or manufacturing company, and therefore he thought the income of each year ought to bear the extraordinary expenditure of each year. As the directors had no intention of raising debentures they might look upon the capital account as virtually closed, and he should like the directors to say that the capital account was not only virtually closed, but practically closed. He also thought it would be very desirable if they could make some arrangement which would prevent them paying 12 per cent. to the agents for money borrowed to pay the dividend.

The CHAIRMAN said that the present form of accounts had been adopted for the express purpose of affording the shareholders every possible information. In the revenue account there would be found a full statement of the revenue and expenditure, and, beyond that, the form of accounts which the directors had adopted was that which the Board of Trade required all railways to adopt. (Cheers.) He disputed the position of Sir Leopold Heath that this was scarcely to be looked upon as a permanent company. The policy of the directors was to treat it as a permanent investment, and they had all the evidence before them that it was a permanent investment, and he had the fullest confidence that it would be a permanent company. Therefore there was no ground for treating this otherwise than as a permanent investment. (Cheers.) He also disputed the position that they had drawn upon the bullion agents to pay the dividends; what they had done was to draw upon profits to pay the dividends. Certainly they had sometimes drawn upon the agents to pay bills which became due, and that they must do until the company had accumulated 30,000*l.* or 40,000*l.* of capital, which he hoped they would shortly do. Now that the ore was refined at New York it took three months from the time of sending the ore from the mine until the bullion was received and turned into cash, but now that the company possessed its own refining works the operation would be completed in 14 days, so that that would do away with the necessity for borrowing, and save the interest which was now paid. Of course, if the shareholders liked to pay all the 50,000*l.* out of the revenue of one year it would be a wise course, but where would they find a body of shareholders who would consent to that. (Hear, hear.) In fact, some of the shareholders had found fault with the directors for having done so much as they had already done, and, therefore, the board had endeavoured to steer a middle course, and to pay a handsome dividend, and at the same time accumulate something towards capital. Therefore, the directors were scarcely open to the charge of having borrowed money to pay dividends; so far from that being the case they had taken 30,000*l.* from revenue to clear off capital. (Cheers.) As a matter of fact, the directors had never borrowed the 50,000*l.* they were authorised to borrow.

Mr. HOPKINS said he had no doubt whatever that in future years they would be able to write off year by year out of revenue all they spend upon capital account.

Mr. BRIDGEWATER fully approved of the course which the directors had taken.

He thought the best proof of the value of the company was the fact that such a careful man as Mr. Meyers was willing to advance money as he had done.

Mr. PULBROOK said that the directors, in drawing upon the agents, as they had done, had simply adopted the course which was followed by nine out of ten of every English mine, and was a very proper and legitimate course. As to the form of the accounts, he had seen a great many accounts of public companies, but he had never seen accounts which gave so much information to shareholders as these accounts. He agreed that the right course was to extend the payment of any extraordinary expense over a series of years, and not make it a burden upon any one year. It seemed to him that everything was going on satisfactorily, and it was particularly satisfactory that such large quantities of reserves had been opened up.

Mr. BAXTER expressed a hope that monthly circulars would be sent out, and also that half-yearly meetings would be held.

Mr. T. G. TAYLOR thought it was particularly important to the shareholders to know that they only divided what they earned, for such a course was calculated more than any other to give the shareholders confidence in the company.

The CHAIRMAN said that they had not borrowed money to pay the dividends, and it was astounding how anyone could repeat such a suggestion after the emphatic statement which he had made. As a matter of fact they had borrowed from revenue to pay to capital account. (Cheers.) As regarded monthly accounts, the directors had always been in the habit of giving the shareholders the fullest information as soon as it arrived, and they would continue to do so. With regard to half yearly meetings, there could be no objection to them if the shareholders wished it. (Cheers.)

After some further unimportant discussion, the resolution for the adoption of the report and accounts was put and carried unanimously.

Mr. HOPKINS proposed the re-election of Mr. Broughton as a director, and in doing so he bore testimony to the great business qualifications of that gentleman.

Mr. BOWER seconded the resolution, which was put and carried.

Mr. BROUGHTON acknowledged his re-election.

M. HOPKINS said he had next the very great pleasure of moving the re-election of Mr. Probert as a director. In the course of a speech of some length he referred to the invaluable services which Mr. Probert had rendered to the company in going out to examine the mine, and then again to superintend the erection of the refining works. The shareholders might rest content that in Mr. Probert they had a gentleman in whom they could place the most implicit confidence, and he was only sorry that gentleman was not able to remain much longer at the mine. However, the directors had been carefully making enquiries with the view of obtaining a manager to go to the mine when Mr. Probert left, and he believed they had secured the services of a gentleman who was in every respect qualified for the important position; in fact, he believed that no better man could be found.

Dr. BISHOP seconded the resolution.

The CHAIRMAN, in putting the resolution, also referred in high terms to the great value of the services rendered by Mr. Probert.

The resolution was then carried.

Mr. Geo. Broom was then re-elected an auditor, and Mr. Jas. Fraser was elected in the room of Mr. Hale, the latter gentleman having ceased to be a shareholder.

Cordial votes of thanks were then passed to the Chairman and directors, to Mr. Probert, to Mr. T. Westbury Hall, the secretary, and to the other officers, and the meeting broke up.

GREAT SNAEFELL MINING COMPANY.

The annual general meeting was held in St. James's Hall, on Wednesday, Mr. H. B. NOBLE in the chair.

There were present—Messrs. R. Corlett, E. T. Quiggin, G. Maley, George Barber, J. C. Fargher, J. N. Woodruff, James Haining, W. E. Young (secretary), and Capt. James (agent).

The notice convening the meeting was read, and the accounts, which had been previously circulated, and were taken as read, showed that the total receipts for the past year had been 3325*l.* 15s. 10d., including 437*l.* 18s. 11d., the balance of account passed at the previous meeting, and the sum of 525*l.* 15s., the proceeds of 30 tons of lead ore, sold to the Burry Port Smelting Company, at 17*l.* 10s. 6d. per ton. The labour cost for the twelve months had been 2135*l.* 17s. 1d., and the merchants' bills amounted to 628*l.* 4s. The balance brought down amounted to 116*l.* 8s. 5d.

The CHAIRMAN: You have heard the reports of the directors, agent, and auditor. The balance-sheet has been in your possession the stipulated time required by the Deed of Association. With regard to the mine itself, there is very little to add to the manager's very full report, but I may say that the 25 still continues to produce about the same quantity of lead and blende; and there is no doubt that if the 74 had been as productive as it was at the end of last year, not only would the mine have been paying costs, but I have no doubt that it would have been making a profit. (Hear, hear.) It is certainly a little disheartening that we have not been able to effect this before now, but we should not be discouraged when it is recollected that in the adjoining mine it is quite a usual thing for the yields to fail in various places, the difference between our mine and the other to which I have alluded being that they have so many points of operation that when one falls off another one immediately comes to their aid. Mr. Warington Smyth, the Government Inspector, said, when he was last at the mine, that when he made his inspection last year, if he had been put blindfolded into the 47 fm. level, he would have said, when restored to sight, he would have thought he was in the Great Laxey Mine, it looked so well. A shareholder has recently had the mine inspected by an experienced mining engineer, and I am very much pleased to be able to say that he expressed his full approval of the manner in which the mine has been laid out, and said that the pitworks and levels are in excellent order. Now, there can be no doubt that if the rib of ore discovered in the 85 fm. level is continued in the 100 fm. level, then the mine is established.

The reports, &c., were carried unanimously, and Messrs. Adams and Berey were re-elected directors. Mr. James Haining was re-appointed auditor.

Capt. JAMES: We have a lode 5 or 6 ft. wide. I had hoped, from the appearance of the mine last Christmas, that we would have had a deposit by this time, but I have been disappointed in the matter. The driving of the 85 has, however, been very promising all the way from the shaft, but more particularly during the last 30 fms. We have had the lode all through, and if this in the 100 should turn into a solid rib of ore, then the mine will not only pay expenses but give profits. I think that when we have pushed on the 100 we shall meet with a solid rib of ore; and if we get it we shall at once be in a position of making profits. We have nothing to expend the money on in any way except in the simple working of the mine.

The CHAIRMAN: The directors have the greatest confidence in the way in which Capt. James has managed the mine, and our good opinion of him is confirmed by that of impartial agents who have inspected the mine.

Capt. JAMES, in answer to the Chairman, said that the shaft was quite perpendicular, and it would be a very easy to put a man-lift in it. The mine was complete in every respect so far as it has gone, and as there was no occasion to lay out money on anything whatever except in the actual development of the mine—the driving of the levels, and such like—there was no doubt that as soon as they got ore in any quantities they would begin to make a profit.

Thanks were voted to the Chairman, and the meeting then separated.

TYLLWYD.—An extraordinary general meeting of shareholders is called for Tuesday, to consider a proposal made by the vendors to take up a large portion of the remaining purchase-money in shares of the company; this proposal is no doubt in consequence of the very promising way in which the mine is opening out, for by recent reports it appears that nearly 700 tons of lead ore has already been discovered, and the two lodes on which they are working are worth from 2 to 2½ tons per fathom, with a large extent of virgin ground before them; moreover, the lowest part yet reached is but 20 fms. below adit, which is a shallow depth for such very favourable results to have been met with; this, coupled with the desire of the vendors, who are well acquainted with the mine, to acquire a further portion of the share capital in place of cash, speaks well for the future prospects.

WHEAL RUSSELL.—At the meeting, on Nov. 20, the accounts for the 16 weeks ending Sept. 4 showed a debit balance of 227*l.* 10s., but charing one cost-sheet more, and additional months merchants' bills, and the ore sales of Nov. 22 and Nov. 19, there was a credit balance of 264*l.* 15s. 5d. A dividend of 293*l.* 13s. (6d. per share) was declared. Capt. John Bray reported that they will sample for the next four months about 400 tons.

GUNNISLAKE.—At the general meeting, on Nov. 18 (Mr. J. C. Isaac in the chair), the accounts from May 2 to August 22, showed a credit balance of 1391*l.* 15s. 11d. A dividend of 149*l.* 10s. (1s. per share) was declared. Thanks were voted to the Council of H.R.H. the Prince of Wales for their liberality in a continued reduction of the dues. Capts. Skewis and Seccombe, after reporting upon the various points of operation, state that considering the important discovery of ore about the engine shaft, and the improved character of the ground, together with the discoveries recently made in the western part of the mine, it is but reasonable to believe that this mine will soon be amongst the best dividend ones. It is also very pleasing to find that the price of copper ore has been advancing with some degree of stability. They called attention to the hard and unprofitable ground between the 92 and 140 fm. levels, and but for the great liberality received at the hands of the Council of H.R.H. the Duke of Cornwall, in the reduction of dues from time to time during the prosecution of this work, it is more than probable that the shareholders would have been so dispirited as to have given up the mine, and, therefore, lost a property which, according to present discoveries, is likely to be of great value to them, and also in the shape of dues, to H.R.H. the Duke of Cornwall.

PARBOLA.—A meeting of shareholders was held at the company's offices, Bishopsgate, on Monday (Mr. John R. Daniell in the chair), for the purpose of confirming the resolutions relative to the re-constitution of the company, and signing the Articles of Association, &c. The proceedings were, of course, perfectly unanimous throughout, and the Chairman gave a detailed account of the prospects of the mine. He explained that the cost book company failed in fully attaining their object, and it became necessary to seek for some additional capital. The present shareholders have the greatest confidence in their property, and that confidence is justified by the large returns of tin being made. With increased appliances they will be able to return a sufficient quantity to give substantial profits. The estimation in which the mine is held by the company may be gathered from the fact that, notwithstanding the depression existing in mining circles, the shares of this company cannot be obtained on the London or Cornish market under 5*l.* each. The shares are held principally in Cornwall, and there is every reason to believe that dividends will commence in about the month of March next. This is an instance of the success which invariably attends private enterprises brought to bear on a first-rate district. The singular feature in connection with this mine is that the returns are being made from a large elvan course, and it is stated that the mine is for all practical purposes almost inexhaustible. Mr. George Still, of Bishopsgate-street Within, has been appointed the secretary, and the chairman of the company is Mr. John R. Daniell, of Camborne. It will be seen that the company has thus the advantage of great mining experience in their Chairman, on the one hand, as well as the benefit of a gentleman in London whose experience in matters of account and the conduct of public companies is, perhaps, scarcely to be exceeded.

ANTWERP TRAMWAYS COMPANY.—The statutory meeting was held at the office of the company, Cornhill, on Wednesday, when the Chairman (Mr. W. J. Valentine) stated, in the course of a few remarks to the shareholders, that the Antwerp Tramways was a going and successful concern before being organised into a limited company. The property, consisting of the various lines of rails, horses, carriages, extensive stables, large quantities of land, with the concession, and all advantages belonging to the former owners, cost the company 108,000*l.* in debentures and shares. The company's business commenced in July last, and at the ordinary general meeting, to be held in February, every information would be given relative to the position of the company. Meantime he might say that it was anticipated to show such results from the first six months' working as would pay the interest and amortisement on the debentures, and a dividend to the shareholders. It was also intimated that arrangements were in progress for a further extension of the lines, which would greatly improve the company's prospects. The directors had personally visited the company's property, and thoroughly examined the management and accounts, and expressed their full confidence in the success of the enterprise.

[For remainder of Meetings see to-day's Supplement.]

THE IRON AND COAL KINGS OF THE NORTH.

VIII.—MR. JOHN HENDERSON.

In a quiet and unobtrusive way Mr. John Henderson, late M.P. for the City of Durham, has attained a position of remarkable usefulness and distinction in connection with the leading industry of the North of England. It is chiefly as a carpet manufacturer that the subject of this sketch is known by the public at large. The now large and influential firm of Henderson and Co., carpet manufacturers, of Durham, was originated at the village of Church Newington, in the first year of the present century, by Mr. Gilbert Henderson, father of the present senior partner of the well-known firm. In 1814 Mr. Henderson removed from Church Newington, where he had began with only 15 looms, to the Cathedral City of Durham. In 1824 the business passed into the hands of Mr. John Henderson, and has since then been carried on by him in conjunction with his brother William. Many reforms and improvements were initiated by Mr. Henderson. He was the first to erect machinery for the manufacture of Kidderminster carpets outside the town that had previously enjoyed a monopoly of that celebrated quality of carpeting, and in 1837 he introduced new and economical appliances for chipping and rasping dye woods, a process for which up to that time the carpet makers of this country had to depend on the drysalters. Again, in 1859 Mr. Henderson took out patents for a new power-loom for weaving Brussel carpets, allowing of an increased production of 17½ per cent. on the average, and an economy of 6½ per cent. in wages. The works of the Messrs. Henderson are the largest of their kind in the County of Durham, and furnish employment to between 2000 and 3000 workpeople of all kinds.

We cannot fix the exact date of Mr. Henderson's first direct connection with the iron trade of the North of England. He is, however, and has for a considerable time been, the chairman of the board of directors of the Consett Iron Company, one of the most extensive and flourishing commercial concerns in the world. The works of the Consett Iron Company came into the hands of the present propretary in 1864. Previous to that time they had passed through many vicissitudes, and had encountered an exceptional degree of ill-luck. The capital of the present company was fixed at 400,000*l.*, divided into 40,000 shares of 10*l.* each, and the sum paid for the works of the old company (which included some 16 blast-furnaces, finished ironworks, and coal royalties of large extent) was only 295,318*l.* The purchase of the adjoining works of Shotley Bridge Iron Company took place in 1866, when 60,000*l.* additional capital was created. From the date of formation of the present company to the present time the shareholders of the concern have reaped benefits almost if not quite unique. From its formation in April, 1864, until June, 1870, the dividends paid to the shareholders averaged 10 per cent., and it must be remembered that some of the most untoward and inauspicious years in the whole history of the iron trade were embraced within that period. Since 1870, however, the dividends paid by the Consett Iron Company on the original shares of the concern have ranged between 25 and 35 per cent., exclusive of the 9200 additional shares, of the nominal value of 10*l.* each, allotted to the then proprietors out of the revenue of the company, while 7*l.* 10s. per share was paid at once on each new creation of capital. From the time that Mr. Henderson became identified with the fortunes of the Consett Company it has experienced nothing but continuous prosperity, in striking contrast with the misfortunes that had attended its antecedent career. The company extended their finished ironworks from time to time, until they are now able to produce 1200 tons of plates per week, in addition to rails and other varieties of finished iron. They have remodelled entirely the pig-iron department of the works, having demolished all the original 18 furnaces, and built in their stead 6 furnaces (out of capital) of the most modern and economical construction. The coal royalties of the company have been developed with characteristic energy and enterprise; and the company have, in addition to their mines elsewhere, opened out in Spain, conjointly with the Dowlais Iron Company and Herr Krupp, of Essen, large royalties of hematite iron ore, of which a very large proportion is now used in the production of the Consett brand of pig-iron, thus earning for it the distinction of being one of the best brands produced in the North of England. We need only add that as the chairman of the Consett Iron Company Mr. Henderson has achieved as much success as in his capacity of one of the largest shareholders he has earned pecuniary emolument and reward. We may add that the Consett Iron Company employ between 5000 and 6000 workpeople, raise 12,000 tons of coal per week, and pay very close on 400,000*l.* per annum in wages.

Throughout the greater part of his mature life Mr. Henderson has been one of the most earnest advocates of arbitration as a means of settling trade disputes; and one of the earliest applications of this system of which there is any record in the North of England was carried out by Mr. Henderson, in concert with the Messrs. Crossley, of Hallifax, Cooke, of Millbridge, Whitwell, of Kendal, and Monkhouse, of Barnard Castle. This was about the year 1840, when the carpet trade of the North of England was threatened with almost complete annihilation from the frequent and prolonged disputes between employers and employed. Until 1849 the association was presided over by Mr. John Howard of Leeds, and since that time the president has been Mr. William Henderson, of Durham, brother of the gentleman to whom this sketch refers. Since the formation of the board there has been no general strike in the carpet trade of the North of England, but, on the contrary, peace and harmony have invariably prevailed, even when questions relating to a reduction of wages were under consideration. The *rationalé* of the arbitration board in the carpet trade differs considerably from that of any other similar board, There is no equal representation of masters and workmen, nor are the latter allowed the privilege of deliberating and voting on any question in dispute, as in the arbitration boards of Nottingham and the North of England iron trade; but the workmen send a deputation to wait upon the masters (in conclave assembled) with a memorial setting forth any grievances or causes of complaints; and after the workmen have retired the masters discuss and decide upon the matter in dispute, the vote of the majority in case of division carrying the day.

In consideration of his well-known sympathy with the cause of arbitration, and of his intimate connection with it, not to speak of his extensive relationship with the coal trade of the North, Mr. J. Henderson was some years ago appointed the chairman of the joint committee in the Northumberland coal trade, established for the purpose of adjusting any differences of a local character that might possibly arise between employers and employed, This tribunal is composed of six representatives, chosen from each side, who when a matter of difficulty or dispute arises at any particular colliery, or in any particular district, assemble together to hear both sides, and deliberate upon a judgment. When it is a case that cannot be settled off-hand the usual rule is to call in an expert, generally a colliery engineer of standing, with a miner in whom the men have confidence, to investigate and report upon the case; and in the great majority of instances such report is considered final and binding, without any further interposition of the functionaries of the joint committees.

Mr. Henderson occupies the onerous and honourable post of President of the Northumberland Coal Trade Association; and it is, perhaps, as excellent a proof of his judicial capacity and moderation as it would be possible to adduce, that no general strike of the coal miners of Northumberland has taken place during the last 10 or 12 years, despite the critical and perplexing circumstances of that period. Nor has there, indeed, been any partial strike of any consequence, although an occasional suspension of labour has taken place at individual collieries. We may here be permitted to doubt whether the same can be said of any industry in the country in which, as in the Northumberland coal trade, there are from 14,000 to 15,000 hands employed.

For a number of years Mr. Henderson sat in Parliament as the senior member of the City of Durham. To this position he was re-elected in the general election of 1874; but on petition, some few weeks afterwards, he was unseated for bribery by his agents, and was thus disqualified from again offering himself as a candidate. Mr. Henderson is an excellent Liberal, and his parliamentary services have been much appreciated by his constituents.

WHEAL AGAR—DARLINGTON'S ROCK DRILL.

Friday, the 27th inst., being pay and setting day, one of the committee (Mr. Waddington) came down from London to dine with the men, with a view to enlisting their sympathies and hearty assistance in their efforts to introduce Darlington's Rock Drills. After dinner Mr. Waddington expressed his regret that though there were local gentlemen, who had made large fortunes through the mineral wealth of Cornwall, it was left to an outsider like himself and the shareholders in a poor struggling mine to prove the success of boring-machinery. Perhaps it is one of Fortune's favours that it is left to you to become the first working miners in the kingdom to handle and to work a machine which, if you persevere with a will, must be successful. This success will reward you in a three-fold manner—1. by its tendency to increase your wages by the increase in the amount of work done: 2. the lessening of your physical labour, for this machine, which weighs but 100 lbs., can be moved with ease by two men; it can be fixed or unfixed in five minutes; it will strike from 300 to 1000 blows per minute, with a pressure of from 200 lbs. to 350 lbs. per stroke. When you consider that all this weight is centred upon the point of a drill from 1 in. to 13-16ths in., and that this borer or drill is striking from 700 to 800 times per minute, with a pressure of atmosphere on the pressure-gauge of 45 lbs. on the square inch, you will conclude with me that there is no withstanding the fact or the result that nature has provided through the genius of inventors a means of lessening man's toil, increasing his wages, and improving his health. This last point is not the least on which I place great stress, and is the third advantage I predict to the miner. You have in your experience in pursuing your calling worked in places where the atmosphere has been not altogether feeding but poisoning in its nature, as your only companion the candle, with its slight and hesitating flicker, has told you. Miners, these days are doomed not only to you, but to every other miner, if you will throw away prejudice, take this machine as your friend—the giant which, while you look on, will put down a hole 1⅛ in. in diameter 12 in. deep in three to four minutes; nay, it not only puts down the hole, but by its action discharges 64,800 cubic inches of dry and pure atmosphere per minute. No more stifling from smoke, no more bad air in distant cross-cuts, shafts, or winzes. Four miners, strong and healthy, working with a will, would consume about 3200 cubic inches per minute, so that you will see one boring-machine discharges air enough, provided none came from any other source, for 20 men, if they were all working in a long cross-cut far from the shaft. I regard this machine, and so will you when you have come to like it, as the locomotive engine-driver does his iron horse, as a dear friend—a friend to father and mother, wife and sister, as well as child, as calculated to prolong the miner's life many years. There will be fewer widows, and not so many orphans, when the miner lives and breathes a healthier atmosphere day by day.

Probably you ask yourselves—How is machinery going to raise our wages? To him who won't think and won't learn, but knows all, and that it wont, I can make no reply, but to you who, I hope, are determined to throw away prejudice, and open your minds to fresh lessons in experience, I answer that a drill will put in 40 holes in the time two miners can put down two in hard ground, as you, we hope, will soon see. Science, in the discovery of electricity, has placed at our command a power which the slumbering Bickford fuse has too long enjoyed. It is our intention to discharge every hole at one and the same time by means of a detonating cap placed at the end of a bit of wood connected with two bits or one bit of copper wire passing through it. The last man coming from the shaft will connect this wire with the electrical machine. The circuit of wire being completed, the electrical machine is placed in some level above, and out of the way. The turn of the handle 15 times will produce a flash or current, which is no sooner discharged than all your charges of dynamite are exploded before the hand can be withdrawn—so quick is its action. I think you will see with me that this mode of discharging your blasts is far superior to the ordinary fuse. The electric fluid has either fired the holes or it has not; if not, then the connections are wanting, and in your descent to see the effect or the cause you run no more danger than in going into your own cellars. No explosion can take place until the machine is again charged.

Thus, then, you can form some idea how much more work can be done with benefit to the mine, and let us hope also to the employer or adventurer. If you can sink 5 or 6 fathoms per month on one big lode do not suppose that we shall bind you down to 4*l.* per month, or 4*l.* 10s.—for we can or we will give you wages which will be greater than you have hitherto received—but this depends on yourselves. You who go home and think over this matter will come to this conclusion, make this machine drilling a success and Cornwall and its mines rise again and become profitable—capital shall again flow west to develope her resources. The greatest obstacle to which we are at present exposed is the long time taken to open up the ground, and the heavy standing charges which exhaust money and patience. Make the machine a success, and mining again rises to that position as free from risk, as coal or iron mining, and a thousand other occupations.

One word more. There has rarely been any discovery or invention for the benefit of mankind which some parties have not strenuously opposed—the power loom, wool-combing, the threshing-machine, the steam plough, nay, the quiet friend of a large family, the sewing machine, all have been decried, yet they all appeared at the right time and season, when the wages were reduced to a point that scarcely kept the soul and body together; and what was the immediate result—greatly increased wages all round. The seamstress worked day and night, from 16 to 20 hours per day, for a paltry 5s. or 6s. a week. There are thousands of girls and women now working the sewing-machine making their 15s. to 30s. per week; such has been, and such will, we hope, ever be, that while machinery tends to increased production, wages rise and the hours of labour shorten; and in your case your hours, though not shorter, are shortened by the purity of the atmosphere you breathe and the speedy expulsion of smoke or deleterious particles in the air you breathe. What have machine-drills done? I will tell you something of what they are doing. In the St. Gothard Railway tunnel they are progressing at the rate of 3 fms. a day. At some of the mines in Colorado they are driving tunnels 8 ft. by 8 ft. at the rate of 150 ft. per month, through hard blue clay-slate. Will you say we cannot do it? No, you will do it, and let the world see that Cornwall, the old home of the metallic miner, is equal to the occasion, and will defy competition; although the mines are deeper than they once were, yet some of them are richer.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

CHAPEL HOUSE COLLIERY.—The sinking of the new pits, which are now down about 20 yards, is being rapidly proceeded with, but is, of course, not allowed to interfere with the regular work of the colliery. Indeed, the output for the current month shows better than usual, being about 8000 tons, while the profit follows suit, and is higher than the average. We are informed that a substantial sum will stand to credit for profits after payment of the dividends of 15 per cent., which have been issued to the shareholders regularly ever quarter since the company started.

CALDBECK FELLS.—The sales of ore from this mine would be better understood by the public if slightly detailed; thus, instead of being read as it appears in last week's Journal, "We shall sample to-morrow about 45 tons of lead, and next week we shall sample about 50 tons of copper ore," it would be more explicit to say that we shall sample to-morrow about 22 tons 10 cwts. of lead a month for two months: total, about 45 tons. And about 12 tons 10 cwts. of copper a month for four months: total, about 50 tons of ore. This would show the present yield of ore monthly.

ST. AGNES CONSOLS.—The lode recently intersected in the engine-shaft has been opened on for 10 fathoms, and from its quality and masterly appearance stamps this undertaking as one of great importance, and gives proof that it may ere long rank with the best mines in this celebrated district.

WEST ESGAIR LLE.—The stopes in the western mine continue to improve, being valued higher this week than at any other period. The last 50 tons of ore have been sent away, and another parcel is now getting ready for market. Dressing is proceeding regularly, and everything going on as well as could be desired.—Eastern Mine: This part of the company's property continues to turn out in a satisfactory manner. Since last report 5 fathoms of the iode, in the 24 west, have been taken down, proving to be worth 1 ton of lead per fathom, and opening out good stoping ground: this is a great improvement. The 24 east remains of equal value to last report, about 30*l.* per fathom. The 34 east is now within a fathom or so of the ore ground gone down in the level above, and is of such a nature as to leave no doubt of a lode being cut at least equally as rich as what it is in the 24. The 10 is without change, being worth 20*l.* per fathom. The stopes in the back of this level are better, and worth 30*l.* per fathom. It is now apparent that more lode is standing to the north in this level, and, no doubt, for the whole drivage when taken down it will be found to turn out as good as the stopes. It will be seen that a large quantity of ground is being rapidly laid open which will pay well when taken away.

TIN MINING IN ST. AUSTELL DISTRICT.—In a former letter I stated—"This district is known to abound in mineral wealth. The Great Polgooth, Great Hewas, and St. Austell Consols have yielded millions sterling worth of minerals, and a large [illegible] of virgin ground adjoining would be found equally rich, if properly developed." The geological features and mineral characteristics are identical, and there are the same lodes, elvans, and cross-courses. The above statement is proved beyond the possibility of contradiction, as the most sceptical must admit, on a visit to the Polgooth United Mines, where he will see large quantities of very rich tinstuff, drawn from two distinct lodes at least 50 fms. apart. The tin discovered in these lodes is of great importance; it has been discovered at a small cost to the adventurers, and proves the value of this long-neglected district. No such discoveries of tin have been made in this quarter since the palmy days of the old Polgooth, when nine men raised tin enough to pay the cost of that extensive mine, and I very much question if another mine can be found in the county that can boast of richer work than is daily produced from the lodes in this mine. The lode found to be so rich here runs directly into and through the West Polgooth sett, which adjoins, and, I hear, is about to be worked by a good company. Here will be a very valuable property, and if worked with economy cannot fail to be a success. —COUSIN JACK.

CORNISH MINE SHARE MARKET.—During the past week the share market has been rather quiet, with not much business doing, in consequence of the near approach of the Banca sale. The prominent share of the week was Dolcoath, in which a large business has been transacted at from 48½ to 49½. South Carn Brea declined from 37s. 6d., 40s. to 30s., 34s. The following are the closing prices:—Botallack, 45 to 55, but little dealt in. Carn Brea quiet, 54 to 56. Cook's Kitchen not much doing, 9 to 9½. Dolcoath largely dealt in, at from 48½ to 49½, and

continue in good demand. East Pool advanced from 8, 8½ to 9, 9½, but have again declined to 8½, 9, at which they close flat. East Lovell nothing doing, 10 to 11. Providence weaker, 4½ to 5. South Condurrow unaltered, 4¼ to 4½; several additional circulars have been sent out by both sides asking for proxies to be used at the meeting in London, on Dec. 2. South Crofty shares have advanced since the meeting to 9½, 10. South Frances, 14 to 15. St. Ives Consols nominally 6 to 7. South Carn Brews have declined from 1⅞, 2, to 1½, 1¾, and but a small number of shares, has changed hands. In Tincrofts a moderate amount of business has been done at from 29½ to 30½. West Bassets have declined from 8½, 1¾ to 7⅞, 8½, at which they close flat. West Setons more enquired for, at 22½ to 25; West Frances, 9 to 10. In West Tolgus a small business has been done at from 70 to 74, closing 71 to 73. Kitty (St. Agnes), 5 to 5½, unaltered. Wheal Unys quiet 3¼ to 3½. In Wheal Peevor, a fair business has been done at 6¼ to 6¾, where they close.—*West Briton.*

FOREIGN MINES.

ST. JOHN DEL REY.—The directors have received the following telegram from Morro Velho, dated Rio Janeiro, Nov. 16:—Produce eleven days of October (last division), 11,110 oits.; yield, 9·2 oits. per ton; produce per diem, 1010 oits. Produce for the month of October, 28,700 oits.; yield, 9·2 oits. per ton. Rains have set in.

Telegram, Nov. 22.—Produce ten days (first division) of November, 9900 oits.; yield, 8·7 oits. per ton; produce per diem, 990 oits. Profit for October, 6100*l.*

MINERAL HILL.—Mr. Oakes, the superintendent at the mines, writes, under date Nov. 2—We have raised during the week 35 tons of ore, of an average grade of $35 per ton.

LONDON AND CALIFORNIA.—By telegram just received from the agents, the ledge discovered at the Original Amador Mine is shown to be 100 ft. in length: width and depth yet to be proved.

RICHMOND CONSOLIDATED.—Cablegram from the mine at Eureka, Nevada: Hall, London.—Week's run, $52,000.

RIO TINTO.—Nov. 4: Removal of overburden per week, 3206 cubic metres; total to date 170,144 cubic metres—about 425,000 tons. Number of hands employed at mines, 1134. The steamship Gogo is expected at Liverpool with 150 tons of cement copper, sold for arrival, and about 250 tons of pyrites. The progress of the contractors with the railway is so satisfactory that the directors rely upon the completion of the line by Midsummer.

BATTLE MOUNTAIN.—On the 5th inst. the agent reports: In the 188, north of the new shaft, which has been communicated with Pearce's winze, and is now driven a few feet beyond it, the ground is of a similar character to that in the 113 above, and for the same reason is suspended, and the men placed to drift in the 145, north of Daniel's winze, the lode producing some good stones of copper ore. The stopes in the back of the 188 are nearly exhausted. This will make against our returns of ore, and we shall be compelled now to stope some of the back of the 260 drift at Cook's winze. This is unfortunate, inasmuch as this drift is not in communication with the new shaft. This, however, will be accomplished as early as possible. The 260 ft. drift, north of the new shaft, having been commenced a few days prior to my arrival, on the 31st ult., a plat is being cut at the same time. As soon as the plat is finished I anticipate good speed. The ledge at this, the deepest point of the mine, is, I think, larger than for some time, and is of a very promising character, similar to its appearance in the 188 before meeting with the ore there—a rich-looking gossan, with stains of copper. Cook's winze, as before advised, has been sunk to the 260 ft. level, and drifts, both north and south of it, have been commenced. In the 260, south of Cook's winze, now in about 17 ft., the lode produces some good ore in red oxide principally, and this is very important, inasmuch as taking this with the ore passed through in the winze in sinking it would seem to be indicative of a bigger deposit than was in the 188, and so far as I can now judge the prospects seem more cheering than at any time since the fine returns of ore made from the large courses of ore we had in the 73 and elsewhere. I expect the returns of ore will vary according to the 260, at Cook's winze, for until this drift is communicated with the new shaft no regular stoping arrangements can be made for regulation of returns, and hence I hope you will exercise (as I am forced to do) all the patience you can, feeling cheered that now, at a depth of 260 ft., the ledge is assuming more of its large size and rich ore, as seen in the 73. I think in the next deeper level, when we can get there (say), at the 320, that the ore will still further increase in quantity. With the quality we should feel very much satisfied: 193 sacks raised.

NEWFOUNDLAND.—J. Nancarrow, Nov. 11: Fortnightly Report: Cooper's shaft is now sunk below the 20 fm. level 13 ft. I purpose sinking a few feet more for a fork, and then commence driving east and west on the course of the lode; the lode now seen is fully 4 ft. wide, and of a more promising character than I have ever seen. In addition to the branch of lead on the footwall, lead is disseminated through the lode for near 2 ft. in width, and if these drivages do not open out productive ground the lode is a deception; its produce at present is fully 1½ ton of ore per fathom. Being yet short of men to keep on all points underground the 10, east of Cooper's shaft, has not yet been resumed, but will be as soon as we get near. The lode in the winze sinking below the 10, east of McCoy shaft, still looks well, and will produce fully 4 tons of lead per fathom, leaving equally as rich ground on each end of the winze, which will be available for stoping in a few months. This is really a good-looking thing, and being worked by a full staff of men from Sunday night, 12 P.M., to Saturday night, 10 P.M. The new stope in the 20, east of McConochie, looks about the same as last reported, and will produce 1 ton of ore per fathom; when the stope is extended about 6 ft. further west we shall get into richer ground. The lode in the 20, east of this shaft, is very much improving in its character, composed of a beautiful mineral-bearing quartz, containing a little lead. I daily look for an improvement. The same remark may be applied to the deep adit end, driving east of Doctor's shaft, which also contains a little lead at present.

I yesterday commenced a new stope in the roof of the shallow adit, east of White's shaft, but scarcely enough has been done to correctly state its value, but as far as I can see it will yield fully 1 ton of lead per fathom. These are all the underground points in operation at present, but as soon as we get more men, who are gradually coming, we shall have several more places working—The 10, east of Cooper's; the deep adit, west of Kelly's shaft, on north lode; the shallow adit, east of White's and Kelly's shafts, which will have to be forced with all possible energy, for I plainly see depth is the future of the mine, and the sooner it is attained the better, but hitherto I may say you have been opening up a new mine, and now just got under way of working. Besides this, almost everything had got into a state of dilapidation—for instance, the breaking in the adit, which had been repaired for over 200 fathoms; and the water-course, which I spoke of in my last, which we had to make new for nearly 50 fathoms in length. These things took time, and required a large quantity of timber, and had we not bought a stock some little time ago we could not have repaired them, but I am happy to say these things are completed, and now numbered with the past, and the greatest things we have now to do is to erect a new saw-mill and lead floors, which will not cost much, most of the materials for each being on the mine. A new wharf also is worthy of your consideration, which can be made when time will admit, and a great quantity of the material rendered cheap from the spoil heaps, when, no doubt, some tons of lead would be saved, and assist in paying expenses of the same. There is no doubt with proper attention to these things and the underground department good results will follow.

ALAMILLOS.—Nov. 18: The 30, west of west San Francisco shaft, has a small branch of lead, worth ½ ton per fathom. The lode in the 50, west of this shaft, is large, and contains good stones of ore, worth ¾ ton per fathom. The 85, west of Julian's winze, is being driven through a valuable lode, worth 1¼ ton per fathom. In the 85, east of Taylor's engine-shaft, the lode became poor a few days ago, but it is improving again, and yields ½ ton per fathom. The lode in the same level west is poor, and the ground hard for driving through. The men of the 50, east of San Victor's shaft, are driving north to intersect the main lode. In the 40, west of Joaquin's winze, there has been a good lode, but it has fallen off a little in value, and is now worth 1½ ton per fathom. The cross-cut in the 40, south of San Carlos shaft, is being driven to communicate with the above level. The lode in the 50, east of San Carlos, contains a little lead ore. The lode in the 50, east of Judd's engine-shaft, yields ½ ton per fathom. The 60, east of same shaft, is poor, and the granite hard for driving through. The 40, east of air-shaft, is in a small, poor lode. The 30, west of Swaffield's shaft, is opening out a good piece of paying ground, now worth ¾ ton per fathom. In the 50 cross-cut, north of La Magdalena shaft, the granite is still hard for driving through. In Judd's engine-shaft, below the 60, the men are making good progress. The ground in San Victor's shaft, below the 50, is rather hard for sinking through. The sinking of San Adriano's shaft below the 75 is going on regularly. In Morris's shaft, below the 40, the lode is regular and compact, yielding 1 ton per fathom. In Ricardo's winze, below the 40, the lode has improved in appearance and value, now worth ¾ ton per fathom. The lode in Blas winze, below the 30, is unproductive, and the sinking slow through having much water. The lode in Jorge's winze, below the 40, has much improved, and yields 3 tons per fathom. Daniel's winze, below the 50, is unproductive; the men are making good progress. In Merino's winze, below the 30, the lode yields ½ ton per fathom; this is suspended for the present, and men put to cross-cut south to prove if there is part of the lode standing there.

FORTUNA.—Nov. 18: Canada Incosa: The 100, west of Judd's shaft, is in a large and strong lode, with good stones of ore, worth ½ ton per fm. Nothing further has been met with in the 80, south of Henty's shaft. In the 50, west of San Pedro, the lode contains stones of ore, but not of any actual value. In the 60, west of this shaft, the ground is disarranged, and the lode unproductive. The men are now opening the south lode to prove if there be any more lode. The men in the 60, east of San Pedro, are cross-cutting north to get under San Frederico shaft, when we hope to let down the water; the lode in the end is worth ½ ton per fathom. The lode in the 15, east of San Frederico, has failed in the last few days, and is worth at present ½ ton per fathom. The lode in the 40, east of this shaft, is split into two branches, each carrying a little lead, worth ¾ ton per fathom. In the 80, west of Kennedy's, there are good stones of ore in the upper part of the end. The 90, west of Lowndes' shaft, is opening valuable ore ground, worth 2 tons per fathom. In the 90, east of Lowndes' shaft, the lode is very much improved in value, and getting easier for driving, worth at present 1½ ton per fathom. In the 80, east of Caro's shaft, the lode has fallen off in value, and now yields ¾ ton per fathom. The men in Judd's shaft, sinking below the 50, are getting on very well with this work. San Frederico shaft below the 50 is heavily watered; we have a strong party of men here.—Los Solidos: The 110, west of San Carlos shaft, continues in a small lode, worth ½ ton per fathom. There is no improvement in the 90, west of San Carlos. The lode in the 120, east of Morris's engine-shaft, is very large, and of a promising appearance, worth ½ ton per fathom. The 110, east of Cox's shaft, produces 2 tons per fathom, and is throwing open a good length of valuable ore ground. In the 100, east of San Miguel, the ore ground is continuing much further east than in any of the upper levels; the lode yields 1 ton per fathom. The vein in the 25, west of Swaffield's shaft, is very small, and contains occasional stones of ore only. In the 35, west of this shaft, the ground is disarranged, and the lode unproductive. The 45, west of Palgrave's shaft, is in a large lode, yielding good stones of ore, worth ¾ ton per fathom. The lode in the same level east has fallen off in value during the past fortnight. In Buenos Amigos engine shaft, below the 110, the men are getting on satisfactorily. Palgrave's engine-shaft, below the 45, yields 2 tons of ore per fathom; the lode is small in the eastern end of shaft, but large and productive in the western end. Moderate progress is being made in Swaffield's shaft, below the 35, the lode yielding 2 tons per fathom. Londre's winze, below the 100, is not so productive as it was; it yields 1½ ton per fathom, and the men are getting on rapidly. Orive's winze below the 35 is going down in a very fine lode, worth 4 tons per fathom. The ground in Merino's winze, below the 100, is hard, and the lode small, yielding ½ ton per fathom. There is no improvement in Ricardo's winze below the 35. The tribute department yielded the full complement of mineral in the past month, during which time there was no unusual fluctuation in the value of the stopes. The ordinary works at surface are going on very regularly, and the machinery is in good working order. We estimate the raisings for November at 350 tons.

LINARES.—Nov. 18: Pozo Ancho Mine: In the 100 fm. level, east of Warne's engine shaft, the lode is very open, but not so productive as it was, now worth 1½ ton of lead ore per fathom. The 100, west of this shaft, is now in a large strong lode, yielding 2 tons per fathom. The lode in the 85, west of Crosby's shaft, is small and unproductive. The same level, west of Crosby's cross-cut, is worth 1 ton per fathom. The 75, west of Crosby's shaft, continues unproductive. The lode in the 75, east of San Francisco's shaft, is small, containing a little ore. In the 65, east of this shaft, the ground is hard, and the lode small and poor. The 65, west of San Francisco's, is opening up good stoping ground, worth 1 ton per fathom. The 55, west of this shaft, is in a small lode, producing ½ ton of ore per fathom. There is no improvement in the 55, east of this shaft. No. 189 winze, below the 45, is holed to the 55; lode worth 1 ton per fathom. No. 191 winze is holed to the 85 in a lode worth 1 ton per fathom. The lode in No. 194 winze, below the 85, is large and strong.—Los Quinientos Mine: The lode in the 80, west of Taylor's engine-shaft, has fallen off in value, and is now worth ½ ton of lead ore per fathom. In the 65, west of this shaft, the ground is hard, and spare for driving through. The lode in the 80, east of Taylor's, is large, yielding good stones of lead ore. In the 65, east of this shaft, the ground is favourable and the lode large, producing stones of ore. In the 55, east of Addis's shaft, the lode is small, and of no value. In the same level, west of San Carlos shaft, the lode is large and strong, consisting of calcareous spar, spotted with lead ore. The lode in the 65, west of this shaft, is small and poor. In the same level east there is nothing to value. The lode in the 55, east of Judd's shaft, is small, consisting of quartz and lead ore, worth ½ ton per fathom. In the 45, east of Judd's, the lode is small, yielding a little lead, but not enough to value. The ground in San Carlos engine-shaft, below the 65, continues very hard, and spare for sinking. The lode in Pablo's winze, below the 55, is quite unproductive at present. In Diego's winze, below the 55, the lode has fallen off in value, and is now worth ¼ ton per fathom. The lode in Gill's winze, below the 32, has also very much declined within the last few days, now worth ½ ton per fathom. Pascual's winze, below the 45, west of Cox's shaft, is in a lode yielding 2 tons per fathom. Checa's winze has been commenced below the 65, east of Taylor's engine-shaft, and in advance of the 80 end.

LANESTOSA.—Nov. 18: In Judd's shaft the plat is nearly completed, and the 80 metre levels are being opened, whilst the water prevents sinking for a fork below. In Ventilation winze, below the 60, south of Judd's shaft, the ground is improved, and producing saving work. The 60 metre level south has a very kindly lode, worth ½ ton of lead and ½ ton of calamine per fathom, and the ore-bearing portion is increasing in size. No. 1 adit winze will probably be holed within a day or two; the lode is worth ½ ton of calamine per fathom. The lode in the intermediate level, north from No. 2 adit winze south, yields 1½ ton of calamine and 1 ton of lead ore per fathom. In the same level south the lode is improving in character, and more constant in its yield, which is 1 ton of calamine and ½ ton of lead per fathom. The ground in the stope in the back of the 20 metre level north continues hard, and the vein of lead small, worth ½ ton of calamine and ¼ ton of lead per fathom. The trial level from the stope has just reached the west wall of the lode, and holed to the shaft, which ventilates this part of the work; value of the lode ½ ton of calamine per fathom. The tribute pitches in the back of the Cave level are improving, and likely to open out a profitable piece of ground. Owing to the small quantity of ore coming from the stopes only 10 tons of lead and about the same quantity of calamine have been dressed, and the people are now going over secondary stuff, accumulated during the past months.

LUSITANIAN.—Nov. 17: Palhal: The lode at Taylor's engine-shaft, below the 180, is 10 ft. wide, composed of quartz, with stones of ore in it. No. 96 winze, below the 70, east of River shaft, is holed to the 80; there is no stoping ground left here. In No. 98 winze, below the 170, west of Taylor's, the lode is yielding 4½ tons of ore per fathom.—Levels on Basto's Lode: In the 180, west of Taylor's, the lode is 9 ft. wide, composed of quartz, mundic, and stones of ore. The 180 west is suspended for the time; the lode here is 9 ft. wide, composed of quartz. In the 170 west the lode is worth 1¼ ton per fathom. In the 150 east the lode is 5 wide, yielding ⅓ ton of copper and cobalt ores per fathom. East of River shaft, in the 120, the lode is 4 ft. wide, composed of country, flookan, and small stones of ore. In the 110 the lode is 2 ft. wide, composed of country and flookan. In the 90 the lode is 1¼ ft. wide, producing 1¼ ton per fathom of good copper and cobalt ores. In the 70 the lode yields ¾ ton of cobalt and copper ores, and in the 28 the lode is 5 ft. wide, composed of loose quartz and asbestos. The adit cross-cut is suspended.—Slide Lode: In the 50, west of Taylor's, the lode is 2½ ft. wide, composed of schist and flookan.—Carvalhal: The ground in the 60 cross-cut, south of incline shaft, is without any change to notice. In the end there is another small branch of quartz, which underlies rather towards the south, and lets out some water, the increase of which in this branch corresponds with the decrease in the other branches before seen.

HORNACHOS.—A telegram has been received from one of the directors now at the mines, stating that they are sending off 20 tons dressed ore of 60 per cent. lead and about 120 ozs. silver per ton; also that 30 tons will be ready for shipment at the end of December, 20 tons January, 20 tons February, and more after. Mines opening out well.

MENZENBERG.—R. K. Roskilley, Nov. 25: We are pushing forward the driving of the 45 cross-cut with vigour, and the ground still maintains that favourableness as reported on last week. This level is already extended about 2 fms. We have no other change calling for remark throughout the mine.

OFFICIAL REPORTS ON EXPLOSIVE SUBSTANCES.

The recent explosion of gunpowder in London itself, and the evidence given and disclosures made at the inquiries, strengthened by the verdict of the Coroner's inquest, have once again awakened public attention to the unknown perils continually being run, and vividly reminded the inhabitants of the metropolis in particular of the urgent necessity which exists for the control and regulation, by strict laws, of the storage and transit of gunpowder and other explosives.

A review of the steps which have been taken of late towards the attainment of that desirable object, showing also the nature of the agents to be dealt with, the risks involved, and the difficulties attendant upon the treatment of the whole subject, may, therefore, be of interest to our readers. Subsequent to the proceedings of various War Office Committees, a Select Committee of the House of Commons was appointed last session to enquire and report; and the result will be found—set forth so plainly that all who run may read—in two important public documents, Parliamentary Bluebooks that have recently been published—"Reports on the Necessity for the Amendment of the Law relating to Gunpowder and other Explosives, with suggestions for a new Act," by Vivian Dering Majendie, Major R.A., 1874, presented to both Houses of Parliament by command of Her Majesty; and "Report from the Select Committee on Explosive Substances, together with the Proceedings of the Committee, Minutes of Evidence, and Appendix, 1874," ordered by the House of Commons to be printed. This latter document, in particular, has been made the text of sundry press homilies, seeking to make capital out of its revelations in connection with the fatal explosion at the Regent's Canal; but we venture to think that the subject has scarcely been so exhaustively treated as it merits, wherefore a summary of the real lessons to be learnt therefrom may not be devoid of interest or value.

Considering that the Bluebooks referred to contain 478 pages of matter, it must be evident that the subject is a very wide one; and, indeed, it will be found that the question of the transport of gunpowder through the metropolis, to which attention has more especially been attracted, is only one phase thereof, and may almost be regarded as a mere collateral issue. In addition to transport, there are also the questions of manufacture and storage; and, moreover, gunpowder is but one among many explosives—to wit, dynamite, guncotton, cotton-gunpowder, lithofracteur, nitroglycerine, and a host of minor and less known substances, such as pudrolythe, Schultze's powder, Horsley's and Brain's blasting powders, &c., whereof the Select Committee enumerate at least a score.

Here are a variety of blasting agents, whereof the respective and relative merits and demerits require to be made known, especially to mine and quarry owners; and upon these and many other points of interest relating to explosives, their nature and properties, the defects and anomalies of legislation, the unknown risks to which the public, unconscious of their danger, are at all times exposed, &c., the two reports above named bristle with valuable information, frequently of a startling character. In presenting the following *résumé* thereof we shall in all cases give the authority for any particular statement, without encumbering it with continual references to the reports where they appear.

As an essential preliminary, it may be noted that the Select Committee have directed their attention to the following explosive substances, as classified:—1. The gunpowder class; 2, the nitro-explosive class; 3, the chlorate explosive class; and 4, the fulminate explosive class. Under the first class the gunpowder explosives are defined as any preparation formed by the mechanical mixture of a nitrate with any form of carbon, or with any carbonaceous substance not possessed of explosive properties, with or without sulphur, and whether or not mechanically mixed with any other non-explosive; herein are specified gunpowder, ordinarily so called—which may more distinctly be called black powder—and substances comparatively little known, pyrolithe, pudrolithe, and poudre-saxifragine. The second class is defined as any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (with or without sulphuric acid), or of a nitrate mixed with sulphuric acid, upon any carbonaceous substance, and whether or not subsequently mixed mechanically with other substances, this class being subdivided into two, the first division comprising any chemical compound, or mechanically mixed preparation, consisting wholly or partly of nitroglycerine, or other liquid nitro-explosive, such as nitroglycerine, dynamite, lithofracteur, and the less known dualine, glyoxiline, and nitrate of methyl. The second division comprises guncotton, cotton-gunpowder, Schultze's powder, and the less known gun paper, xyloidine, gun sawdust, nitrated guncotton, nitromannite, picrates, and picric powder. The third class comprises all preparations containing a chlorate, mechanically mixed with any form of carbon or carbonaceous substance, with or without sulphur, a nitrate, or a sulphuret; also in two divisions, in the first appearing Horsley's and Brain's blasting powders, and any chlorate preparation consisting partly of a liquid nitro-explosive. In the second, Horsley's original blasting powder, and the following little known preparations:—Erhardt's powder, German gunpowder, Reveley's powder, Hochstadter's and Reichen's blasting charges, teutonite, chlorated guncotton, &c. The fourth class, fulminate explosives, is defined as any chemical compound or mechanical mixture, which, from its great susceptibility to detonation, is suitable for employment in percussion caps or any other appliances for developing detonation, or which, from its extreme sensibility to explosion, and from its great instability (*i.e.*, readiness to undergo chemical decomposition from very slight exciting causes), is especially dangerous. These classified in two divisions—the first, comprising the fulminates of silver and mercury, phosphorus compounds, &c.; and the second, fulminating gold and silver, the chloride and iodide of nitrogen, diazobenzol, and its nitrate. In addition to the foregoing four classes—5, ammunition, such as cartridges, fuses, rockets, &c.; and 6, fireworks, also met with attention; but inasmuch as our present object is to investigate the question of explosives, simply in its purely industrial aspect—*i.e.*, for blasting purposes, to the exclusion of sporting and military purposes; and as many of the compounds and substances named are practically laboratory elements, of little importance from a practical point of view it will scarcely be necessary for us to follow the Select Committee's enquiries over the whole field of their purview; and, indeed, it will be found that attention may be limited to the chief explosives of the first three classes, comparatively few in number, comprising ordinary gunpowder, dynamite, lithofracteur, nitroglycerine, and guncotton.

Generally, the results of the Select Committee's enquiry may be summed up in their own words, as follows:—The law, as contained in five public Acts, does not make adequate provision for the manufacture, storage, and transport, of many of these explosivee; nor for the safety of the public, or the persons employed in the making, keeping, carriage, and importation of those explosives, while some of the Acts impose, in some respects, unnecessary restrictions, and consequently further legislation is required. No adequate provision is made for the public safety as to the proper package or modes of conveyance for explosives when transported from one place to another, or for forbidding the transport, the loading and unloading, of dangerously large quantities through cities and populous places.

Read in the lurid light of the recent gunpowder explosion on board the barge Tilbury, on the Regent's Canal, no human being—except, perhaps, a gunpowder maker or a canal manager—can take exception to the soundness of this conclusion, which seems prophetical.

We learn further, with respect to the retail stores of explosives, that, except in regard to the amount which may be kept, they are wholly unregulated, and the trade may be carried on without license, registration, or supervision of any sort or kind whatever. In reference to nitro-explosives (class 2) the Nitroglycerine Act, 32 and 33 Vic., cap. 113, wholly forbids the manufacture of nitroglycerine preparations and compounds, except by license from the Home Secretary; and there is no adequate legal provision for regulating the manufacture, storage, transport, importation, or shipment, of explosives of this class, while the law relating to the keeping, carriage, importation, and exportation of some preparations of nitroglycerine (such as dynamite) is unnecessarily restrictive as compared with the legislation relating to other explosives.

In submitting, in conclusion, a summary of suggestions by Major Majendie, as modified and adopted by themselves, as to the subject matters for legislative action, the Select Committee again reiterate that the law relating to the making, keeping, carriage, and importation, of gunpowder, nitroglycerine, ammunition, fireworks, and all substances of an explosive nature, does not make adequate provision for the safety of the public or of the persons employed; and further legislation is urgently required with a due regard to the necessities of the trade. Among the said suggestions it is proposed to provide that railway and canal companies shall have power to frame bye-laws for regulating the loading and carriage of explosives, the place, time, and mode thereof, the amount to be carried, and the necessary precautions; or in their default the Home Secretary, or the Board of Trade, shall be empowered to enforce the making of, or to make, such bye-laws, where deemed necessary. There is, of course, the customary and inevitable tribute to "vested interests," in the shape of reservations, whereof many appear to be exceptional, and may probably lapse quietly when the time for action arrives—in view of what we venture to deem the higher vested interest of the community at large, collectively and individually, in safety and protection to life and property.

By way of commentary on, and illustration of, the Select Committees' conclusions, a brief statement of some of the existing anomalies, as recorded, will be found important and interesting. In regard to the absence of legislation in respect of the manufacture, storage, transport, &c., of several groups of explosives—gunpowder, by itself or in the applied form of ammunition, fireworks, &c., is dealt with (more or less perfectly, and rather less than more) by the Gunpowder Act of 1860, 23 and 24 Vic., cap. 139, and the Gunpowder Amendment Acts of 1861 and 1862, 24 and 25 Vic., cap. 130, and 25 and 26 Vic., cap. 98, which also extend to ammunition, fireworks, percussion caps, fulminating mercury, and those miscellaneous explosives which are of the same character as fulminating mercury, but to no others. Nitroglycerine, and preparations of that substance, such as dynamite, lithofracteur, &c., are provided for by the Dangerous Goods Act 1866, 29 and 30 Vic., cap. 69, and the Nitroglycerine Act, 1869, 32 and 33 Vic., cap. 113. While, on the other hand, the manufacture apparently, and certainly the storage and transport, of guncotton, sawdust powder, and a number of other explosives, are entirely unregulated. Moreover, it would seem that the restrictions of the Act of 1860, which alone relate to miscellaneous explosives, affect merely the making and keeping thereof, and that by manufacturers only; persons not manufacturers being exempt. Thus these explosives may be manufactured without license or inspection at all, and without any isolation from dwelling-houses. Whereas licenses to manufacture dynamite are not granted until every detail of the site and buildings has been carefully considered; thus, in the license for the British Dynamite Company's factory at Ardeer, near Glasgow, no less than 31 separate conditions were deemed necessary, and embodied by the Inspector, Major Majendie.

Under the Acts, as interpreted, any person may keep 50 lbs. of gunpowder for his own use, or it a dealer 200 lbs., or for mining purposes (under certain conditions) 2 tons; or quantities in excess thereof respectively, if at a distance of more than ½ mile from a church, 1 mile from the limits of a borough or market town, or 2 miles from a royal palace. But there is nothing whatever to prevent any person from having an indefinite quantity of guncotton, unconditionally, anywhere; as, *e.g.*, 1000 tons in Abingdon-street, close to the Houses of Parliament and Westminster Abbey; in Cornhill, close to the Mansion House, the Bank of England, and the Royal Exchange; or in the Buckingham Palace-road, close by the Royal Palace. Whereas no one may have, make, sell, carry, or dispose of so much as a single ounce of nitroglycerine preparation, such as dynamite, without a license, under penalty of a fine not exceeding 500*l.*, or imprisonment for misdemeanour, with or without hard labour, for any period not exceeding 12 months.

(To be continued.)

Registration of New Companies.

The following joint-stock companies have been duly registered:—

GENERAL REGISTER AND METERS COMPANY (Limited).—Capital 60,000*l.*, in 5*l.* shares. To acquire letters patent for improvements in the apparatus used for registering the speed of revolving machinery. The subscribers (who take one share each) are—John Axtell, 31, St. John's Wood Park, N.W.; Arthur M. Mitthie, 3, Abchurch-lane; M. A. Weir, 4, Bloomfield Villas, Shepherd's Bush; L. G. W. Godden, 168, Fenchurch-street; C. F. Chyatt, 4, Leigh-terrace, Cornwall-road, Brixton; James Hole, 1, Great College-street, Westminster; and Edward Lee, Gresham Buildings, E.C.

DUFFRYN RHONDDA COAL AND COKE COMPANY (Limited).—Capital 50,000*l.*, in 10*l.* shares. To acquire a mineral property in the County of Glamorgan, known as the Duffryn Lymi Farm. The subscribers (who take one share each) are—W. Lonsdale, Lewisham; W. Malcolm, 4, Edgware-road; S. S. Malcolm, 3, Norfolk-street, Park lane; L. Malcolm, 22, St. Mary Axe, E.C.; W. A. Malcolm, Bayswater; C. H. Lonsdale, Newport, Mon.; and James Pastick.

NEW ROAD COLLIERY COMPANY (Limited).—Capital 20,000*l.*, in 1*l.* shares. To acquire coal properties in the Forest of Dean. The subscribers (who take one share each) are—J. R. Taunton, Epsom; A. Pickett, 5, Rouncey-terrace, Lower Norwood; S. F. Condell, 26, Moorgate-street; A. Robinson, 73, Windsor-road, Holloway; J. S. Pothecary, 27, Gracechurch-street; C. S. Preston, 13, Queen Victoria-street; and T. Goodchild, 78, Cheswell-street.

ORWELL NATIVE OYSTER COMPANY (Limited).—Capital 10,000*l.*, in 1*l.* shares. To purchase of Mr. Halcombe, of 8, Moorgate-street, his oyster preserves near Walton, Suffolk.

SHEFFIELD MASONIC HALL COMPANY (Limited).— Capital 10,000*l.*, in 5*l.* sharrs.

WEST BERLIN AND POTSDAM WATERWORKS COMPANY (Limited)—Capital 250,000*l.*, in 10*l.* shares. To acquire concessions for the right to supply West Berlin and Potsdam with water. The subscribers (who take one share each) are Wilford Brett, Esher; Charles Balfour, James-street, S.W.; P. H. Scratchely, Royal Avenue, Woolwich; F. Karuth, 4, Cullum-street, W.; W. H. L. Green, Berlin; H. B. James, 113, Victoria street; and J. L. Hamilton, Victoria-road, Kentish Town.

MONTAGUE HALL COMPANY (Limited).—Capital 5000*l.* in 5*l.* shares. To erect a hall in the town of Worthing.

CITIZEN PRINTING AND PUBLISHING COMPANY (Limited).—Capital 20,000*l.* in 25*l.* shares. To carry on business as journalists and collectors of news, &c. The subscribers (who take one share each)—are E. D. Rogers, 106, Shoe-lane; D. Leggatt, L.L.D., 55, Lincoln's Inn Fields; D. Rogers, Dalyell-road, Stockwell; T.A. Reed, Chancery-lane; J. M. La Sage, Stanhope street, Mornington-crescent, J. R. S. Nere, Redhill; W. J. Greenwood, St. Pauls-road, Camden Town.

NEW ROAD COTTON SPINNING AND MANUFACTURING COMPANY (Limited).—Capital 50,000*l.*, in 5*l.* shares. This is a Lancashire Cotton Spinning Company. The subscribers are—W. H. Besses, Whitfield, near Manchester, 400; J. Bent, Clifton near Manchester, 10; J. Horridge, Radcliffe, 200; W. Wilcox, Radcliffe, 50; J. Peckstone, Radcliffe, 10; E. Madshawe, Whitefield, 10; R. T. Gunton, Radcliffe.

VICTORIA WEBB PAPER MAKING COMPANY (Limited).—Capital 0,000*l.*, in 5*l.* per shares. To acquire paper mills in the county of Antrim.

FOWLER AND COMPANY (Limited).—Capital 15,000*l.* To acquire a printing and publishing business.

JOSHUA HEATH AND COMPANY (Limited).—Capital 3000*l.* in 100*l.* shares. To take over a business at Oldham.

UNITED KENT LIFE ASSURANCE AND ANNUITY INSTITUTION.—Constituted by deed of settlement December 1, 1873, is now incorporated as a limited company.

MANCHESTER ORIENTAL CLUB (Limited).—Capital 5000*l.*, in 1*l.* shares.

VALE MILL COTTON SPINNING, MANUFACTURING, AND MINING COMPANY (Limited).—Capital 50,000*l.*, in 5*l.* shares. To acquire the Vale Mill at Bacup, and to mine for coal at the same place. The subscribers (who take one share each) are—H. Shaw, Rochdale; G. Maxwell, Bacup; H. Chappell, Rochdale; E. Ormerod, Rawtenstall; J. McLaughton, Bacup; J. Lawn, Bacup; B. Clarkson, Heywood.

BANGOR AND PROVINCIAL MUTUAL SHIP INSURANCE COMPANY (Limited).—This company is limited by guarantee, and its object is explained by its title. The subscribers are—J. Roberts, Bangor; H. Williams, Bangor; J. Simon, Bangor; J. R. Ellis, Bangor; R. Griffiths, Llanfair; W. Thomas, Amlivet; J. E. Roberts, Bangor; and R. Jones, Pwllheli.

MANCHESTER WHAREHOUSE PROPERTY COMPANY (Limited).—Capital 200,000*l.*, in 20*l.* shares. To acquire land for the erection of wharehouses &c. The subscribers are—W. Adamson, Faulker-street, Manchester, 50; T. Alexander, Stretford, 50; J. Palin, Mosely-street, Manchester, 100; T. W. Uepht, Melbourne Cottage, Rusholme, 50; E. Wilde, Burnage, near Manchester, 50; J. Beckerton, Oldham, 25; J. Little, Brooklands, Cheshire, 50.

HONEYWELL COTTON SPINNING COMPANY (Limited).—Capital 50,000*l.*, in 5*l.* shares. To acquire a plot of land at Oldham for the erection of a cotton mill. The subscribers (who take 10 share each) are—W. Lees, Hollenwood; A. B. Partington, Oldham; R. Stott, Oldham; D. G. Isherwood, Oldham; O. S. Fielding, Oldham; H. P. Platt, Oldham; and J. Hilton, Oldham.

WAIN COLLIERY COMPANY (Limited).—Capital 15,000*l.*, in 5*l.* shares. To acquire the Main Colliery at Loughor, Glamorgan. The subscribers are—A. Douglas, Gloucester terrace, Hyde Park, 5; T. Jervis, King street, Cheapside, 5; C. S. Philips, 18, Queen Victoria-street, 5; T. D. Whitehall, Queen Victoria-street, 5; W. Partridge, 269, Commercial-road, 5; J. E. Castello, Horslydown-lane, 1; and W. H. Castello, King-street, Cheapside.

NORWEGIAN MINING AND SMELTING ASSOCIATION (Limited).—Capital 100,000*l.*, in 10*l.* shares. To acquire the Malsaa Copper Mines, in the Valley of Vaydal, Norway. The subscribers are—J. D. Fletcher, 12, Westbourne-terrace, 30; C. Allhusen, Slough, 50; M. M. Masse, Spring Vale, Ealing, 10; W. F. Moore, 6½, Austinfriars, 10; E. Woods, Great George street, S.W.; R. S. Archbold, 2, New Broad street, 5; and W. R. Strune, Sussex place, Regents Park, 6.

CAN MINING SHARES BE REGARDED AS PRUDENT INVESTMENTS?—Some years ago we were asked to advance 40,000*l.* upon a mine in Wales, with the option of purchase. At that time we considered every thing connected with mining to be necessarily of a highly speculative character, and we accordingly declined to entertain the proffered business. The matter soon afterwards came to the notice of a gentleman of limited means, but of unusual shrewdness. He went down to Wales to inspect the mine, and then and there he entered into an agreement for its purchase, though rumour has it that he was obliged to borrow even the money for his railway fare back to London. When he returned he laid the results of his observations before his friends; a company was at once formed for purchasing and working the mine; it turned out a brilliant success: the shares advanced to a high premium; and in a few months he found himself the gainer of over 100,000*l.* by the transaction Since then the mine has continued to pay large dividends; and the high market price of the shares is an evidence of the value which is considered to attach to the property. Cases more or less analogous to the above are constantly occurring, and, therefore, it cannot be unimportant to enquire why mining investments are looked upon as the "outer barbarians" of the financial world, and why that industry which laid the foundation and is still the mainstay of England's greatness should be, as a matter of course, held up to public opprobrium and reproach. Surely coal, iron, copper, tin, silver, and gold are as essential for our lives and well-being as are corn, meat, wool, cotton, beer, and wine; and surely those who produce the former should command our respect and attention equally with those who produce the latter. Nor, indeed, is there much discernable difference between the two classes even as regards the vicissitudes of fortune. While on the one hand the miner may find his deposit of ore grow richer or poorer, or may be baffled by floods or explosion, or may see his profits augmented or diminished by the fluctuations of the coal and metal markets, yet on the other hand the agriculturist, the merchant, and the manufacturer have to encounter the chances of the seasons, rain, hail, and murrian, foreign war, Trades Unionism, and the ups and downs of commerce.—*City Observer.*

TUNNELS AND SUBWAYS.—Mr. J. H. GREATHEAD, of Storey's Gate, Westminster, has patented some improvements in constructing tubular tunnels or subways, and apparatus for that purpose. A shield, having a cylindrical flange projecting backwards, so as to overlap the forward part of the tunnel casing, has through it holes with stuffing-boxes and spherical joints, through which tools are protruded to disintegrate the soil in front, and has also through it pipes for ejecting water or air under pressure, and other pipes, by which the disintegrated material suspended in water, or in case of dry sand, in air, is forced back into receptacles behind the shield. The shield front may also be made with doors or manholes, or in cells or compartments, and may be provided with an air chamber behind, supplied with air under sufficient pressure to exclude water from the cells during work. As the space in front of the shield is cleared, it is forced forward by by screw jacks or hydraulic presses abutting on the tunnel casing behind, and the casing is extended within the flange of the shield. The casing may be of iron or other metal in voussoir segments bolted together, or of iron frames filled in with cement or concrete, or of artificial stone, cement, or concrete blocks previously moulded and built in their places with temporary clamps to secure them. The joints may be made tight by leather or other yielding material, which may serve also to make a tight fit to the flange of the shield. The space left by the withdrawal of this flange is filled with liquid cement injected through holes in the tunnel casing.

SMELTING IRON.—Mr. W. A. LYTTLE, of the Grove, Hammersmith, has patented some improvements in the process and apparatus for smelting iron. The features of novelty are—1. The preparation of a concrete or conglomerate, consisting of the iron ore, fluxing material, and carbonaceous matter, all in a crushed state, and consolidated as follows into lumps, the object being the more economical reduction of the ore through the more energetic reaction caused by the intermixture and close mutual contact of the component ingredients.—2. The consolidation of this mixture by any of the existing well-known means, whether patented or not, employed in making artificial stone, or in the consolidation of the dust of coal or peat charcoal for furnace purposes.—3. The consolidation, the same mixture by means of the fluxing lime in a caustic state, by hydraulic cement, by plastic raw peat, or by a thin slip of plastic clay.—4. The smelting of this conglomerate or artificial blackband iron ore in a duplex furnace containing two adjacent shafts or chambers united at the crucible where the blast enters, one chamber being for the fuel only in the form of dust or any other form, and the other for the above blackband. Instead of the blackband conglomerate, an ordinary furnace charge of interstratified lump ore, fluxing materials, and reducing fuel may be used in the second chamber of this furnace.

EXCAVATING MACHINERY.—Mr. H. WILDE, of Manchester, has patented an invention which consists in substituting for the force of compressed air or other power now employed for excavating coal and other minerals, the motive-power produced by magnetism and electricity, by which the excavating is effected in a more economical manner than can be done by hand labour, and with greater comfort to the men engaged in the work. Powerful electric currents for producing the motive-power are generated by magneto-electric or an electro-magnetic induction machine driven by a steam-engine. The invention also relates to the excavating machinery.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, Nov. 25: No. 2 adit, driving east, is of kindly appearance, and producing some saving work for lead dressing, but not sufficient to value. In the rise above this level we have driven west, and communicated with the No. 4 stope, and we have blasted some holes in the north part of the lode to prove its quality, which have produced some good rocks of lead; we are now stoping on the south and soft part to uncover the north and productive part of the lode, which I expect we shall commence to take down in a week from this time, and from its present appearances I have every reason to believe we shall have fully as good a lode in this part as we had in our former stoping ground.—Surface: The masons have finished building the new powder magazine, and commenced to build two new slime pits.

BEDFORD CONSOLS.—Geo. Rowe, J. Mitchell, Nov. 25: The lode in the 67, west of sump-winze, is 5 ft. wide, yielding capel, spar, and mundic, with good stones of ore. The 67 east is now extended within about 5 ft. of the perpendicular of the ore discovered in the level above, where the lode is improving in character, and producing fine stones of ore, altogether of a very kindly appearance.

BOG.—W. T. Harris, J. Barkell, Nov. 24: In driving the 175 west on the Whitestone lode, we have recently cut into a cavity about 20 in. wide, extending on in the direction of the level, and we cannot yet see the fore end of it. It does not reach higher than where the roof of the level should be, and the lode at the top of it is worth about 3 tons lead ore per fathom. This cavity will greatly facilitate our progress in going forward, and in laying open good ground for stopes; preparations are being made to resume driving east from the junction on this lode, where we have every prospect of laying open ground that will be worked at a low tribute. We have 17 tribute pitches at work, varying from 50s. to 8*l.* per ton for lead, and 25s. to 40s. per ton for blende.

CAEGYNON.—F. Hodge, Nov. 25: In the 70 east we have cut into the lode north about 4 ft., which is composed principally of slate, with some strong spots of lead ore intermixed. I think the leader part is still before us. We have cut into the south lode south about 2½ ft., yielding blende, mundic, and spots of lead ore—a very strong and kindly lode. I intend to put a pare of men in the bottom of the said level next week to make a trial so far as the water will allow; the level is comparatively dry in the last 12 fms. driven; that the water is all coming up from the bottom near the mouth of main cross-cut shows that the lode is open and porous; and I can only repeat again that my opinion is as strong as ever that deeper working will surely bring us into a rich mine. It is a fact that in this level the lode has undergone a great change, and we must go deeper to see what it will lead to. I have not the least doubt in my mind as to results. The stope in the bottom of the 50 is worth 6*l.* 10s. per fathom.

COURT GRANGE.—E. Dunkin, Nov. 26: There is nothing special to report on in the underground department this week, there being no change since my last report. The water is going down as fast as we could expect, seeing the great excavations made throughout the mine. Surface work is going on capitally, and we may now consider the mine in fair working order. Full details next report.

CRENVER AND WHEAL ABRAHAM UNITED.—Wm. Thomas, J. Hammill, Nov. 25: Sturt's Engine-Shaft: In the 228 driving west the lode is 2 feet wide, and will yield 1 ton of copper ore per fathom; this end is letting out much more water, and from the appearance of the lode in the end we may shortly expect an improvement. The men we had employed in taking down the side of this level we have set to drive east; this lode is 1½ ft. wide, and will yield 1 ton of copper ore per fathom; this lode intersected the old lode about 17 fms. west of shaft, and to present appearances this lode is standing to the south of this shaft; we shall be able to report more fully on it in a few days. In the 215 driving west the lode is 3 ft. wide, and yields 1 ton of copper ore per fathom. In the winze sinking below the 215 the lode is 2½ ft. wide, and will produce 1 ton of copper ore per fathom. We have set eight men to rise against St. George's shaft, where the lode is 3 ft. wide, yielding copper ore to dress; we attempted to sink this shaft below the 203, but in consequence of there being so much water we were obliged to suspend the sinking for the present. In the 203, driving east on the south lode and west of shaft, the lode is 1½ ft. wide, yielding good stones of copper ore.—Woolf's Shaft: In sinking this shaft below the 208 the lode is 3 ft. wide, and produces 1 ton of copper ore per fm.; the shaft is now about 9 fms. 2 ft. below the level.—Blewitt's Shaft: In the 234, driving west, the lode is 2 ft. wide, yielding good stones of tin, having a much better appearance. In the rise in back of the 220, against Richards's shaft, the lode is 3 ft. wide, and will yield 1½ ton of copper ore per fathom; this rise is now up about 5 fms.—Richards's Shaft: In sinking this shaft below the 210, now down about 2 fms., the lode is 4½ ft. wide, and will yield 2 tons of copper ore per fathom; we are making fair progress, and we hope to obtain a communication here this week. In the 210, driving west, the lode is 4 ft. wide, yielding copper ore to dress. In the winze sinking below the 200, west of shaft, the lode is 4½ ft. wide, and will produce 1½ ton of copper ore per fathom. In the 200, driving west, the lode is 2 ft. wide, and is producing 1 ton of copper ore per fathom. If the weather proves favourable we hope to get the calciner ready for calcining on Monday next. There are employed this week on tutwork 165 men and boys; on tribute, 88 ditto; at surface, 56 ditto: total, 309 men and boys.

CWM DWYFOR.—J. Jewell, Nov. 26: We have put the men from the stopes to work in the level driving east of the south cross cut, as we want to reach the little shaft sunk in the open cutting quickly; we have met with a vugh in the lode, which has improved considerably. We are now near the slide seen in the open cutting; the ground is hard, but there are indications that we may shortly expect an improvement; we are pushing on as fast as possible.

DE BROKE.—T. Hodge and Son, Nov. 26: In Wilson's shaft, during the past week, we have made good progress; the same is now communicated with the adit level. The cross-cut men are placed in the 25, on the caunter lode, to put a trial stope over the back of the level. We have a nice rib of ore showing in the back, the value of which we will report in our next. The rise in the back of the 25, on main lode, during the past few days has been poor, but to day it is looking better, and may be valued at ½ ton per fathom. The stope east of No. 2 shaft is now worth 15 cwt. of lead per fathom, about pay for working. The level showed a good lode in this direction for several fathoms in length, but in going down a few feet it suddenly fell off. The shaft appears to have gone down in the heart of the bunch of ore. Dressing is going on regularly, and the machinery working well. We shall sample to-morrow (computed) 12 tons of lead ore.

DEERPARK.—John Goldsworthy, John Bucknell, Nov. 21: The cross cut at the bottom of the engine-shaft is extended south 3 fms. 1 ft. The stratum is a light-blue clay slate, congenial for the production of copper ore; there is a great increase of water. Judging from the underlay of the lode in the adit, we anticipated on reaching the lode ere this; the lode must have gone down more perpendicular—this is a good sign. Good progress is being made in the cross-cut. The machinery is in good order, and works remarkably well.

DENBIGHSHIRE CONSOLIDATED.—John Pryor, Nov. 26: In the 112 east the ore in the driving is now from 6 to 8 in. wide from the back of the level to within 2 ft. of the bottom, and is now fully 6 yards in length, which will enable us to put men to stope it away. The 112 west is hard for progress, but we have still the small rib of ore with us on the footwall side of the lode; the end continues to let out a good deal of water, which is an excellent sign. In the 66 west the men are turning out good stuff for the dressing floors, and we are proceeding as rapidly as possible in preparing a pile of ore for sale at the coming ticketing—quantity you shall hear later. We have weighed in a fair lot this week.

DEVON GREAT CONSOLS.—Jas. Richards, Nov. 19: New Shaft, New South Lode: In the 145 fm. level east the lode is large, and further improved, 6 ft. of which being carried is a very fine course of ore, worth fully 12 tons, or 72*l.* per fathom. In the 130 east, on the south part of the lode, which is 3 ft. wide, the lode is worth 2 tons of ore, or 10*l.* per fathom.—Railway Shaft, New South Lode: In Dart's winze, sinking below the 145 east, the lode is worth 2 tons of ore, or 8*l.* per fathom. In Burgoyne's winze the lode being stripped down below the 130 west is 3 ft. wide, and worth 2 tons of ore, or 6*l.* per fathom. In Kitto's winze, below the 115 west, the lode is worth 3 tons of ore, or 10*l.* per fathom. In James's rise, in the back of the 100 west, the lode is worth, for the length carried (9 ft.), 4 tons of ore, or 12*l.* per fathom.

DYLIFFE.—E. Evans, E. Rogers, Nov. 25: Dyliffe Lode: At the 120 we are pushing on the cross cut as fast as possible, and expect to cut the lode in about four or five weeks from this time. At the 40 there has been no lode taken down during the past fortnight. The 15 end is producing small stones of lead ore, but not of much value.—Esgairgaled Lode: In the stope in the back of the 45 the lode is improving as we get towards the winze sunk from the level above. There is no alteration in the tribute department: 60 tons of ore have been sold to-day to Messrs. J. Walker, Parker, and Co., at 15*l.* 10s. per ton, realising 930*l.*

EAST DARREN.—Nov. 23: Skinner's shaft, sinking under the 116, is in ground chiefly composed of a dark-clay slate, and hard beds of grit. In the winze sinking under the 104 no part of the lode has been taken down as yet; at this point we are a couple of men short, so that progress is slow. In the 92 east, on the north part of the lode, the lode is 2 ft. wide, composed of a dark-slate carbonate of lime and lead ore, yielding saving work for dressing. At this point we have commenced stoping to prove it. The ore ground does not lengthen eastward above the back of level. The tribute pitches throughout the mine are without change to notice, Our machinery is in good order, and drawing and dressing being pushed forward with all vigour, but the weather for the past few days has been wet and stormy, which has been rather hindering, but we hope to sample to-morrow (Tuesday) 50 tons of silver lead ore.

EAST VAN.—W. Williams, Nov. 23: I am happy to inform you that the 25 west looks more favourable than it has done for a long time as we approach the Van sett.

EAST WHEAL BASSET.—Richard Pryor and Son, Edward Adams, Nov. 24: On Friday last the following bargains were set:—The south shaft to clear and secure below the adit level, by six men, at 3*l.* 10s. per fathom; here we have got down about 11 fathoms below the adit, and are daily expecting to clear the whole of the stuff that is in this shaft. The 50 fathom level cross-cut to drive south of flat-rod shaft, by six men, at 5*l.* 10s. per fathom: we intend to push this point forward with the utmost dispatch, as there are good and important chances connected therewith. The 50 to drive east of shaft, on Copper Hill lode, by six men, at 6*l.* per fathom; the lode is of a very kindly appearance, and worth 18*l.* per fathom. To stope the back of this level, east of winze, by six men, at 5*l.* per fathom: the lode is worth 25*l.* per fathom. To stope the back of this level, west of winze, by four men, at 5*l.* per fathom; the lode is worth 20*l.* per fathom. We also set four tribute pitches at various places throughout the mine, to ten men, at tributes from 12s. 6d. to 13s. 4d. in 1*l.* We continue to make fair progress with the dressing of our copper ore against the next sampling, which we believe will be considered satisfactory.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 21: The rise above the 110 east is in a good lode, worth 12*l.* per fathom for copper ore. Other parts of the mine are looking just as last reported.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 26: The lode in the 130, west of engine-shaft, is 20 in. wide, and worth 6*l.* per fathom. The rise above the 130 west is worth 5*l.* per fathom. The winze sinking below the 120 west is worth 5*l.* per fathom. The ground in the 120 cross-cut north and 110 cross-cut south continues favourable for driving. The rise above the 110, east of engine-shaft, is worth for copper and tin 12*l.* per fathom. The stope below the 95 east is worth 6*l.* per fathom.

EAST WHEAL LOVELL.—R. Quentrall, Nov. 25: Fatwork: In sinking below the 100 the part of the lode we are carrying is 10 ft. wide, and we have no south wall. The north part, for 2 ft. wide, is rich work for tin, and the remainder moderate stamping work.—Tregonebris: The 34, east of new engine-shaft, is worth 25*l.* per fm., and in a winze sinking upon this end the lode is also worth 25*l.* per fm.

FLORENCE CONSOLS (Tin).—P. Skewis, J. Searle, R. Skewis, Nov. 24: Setting Report: Walter's engine shaft is now down 7 fms. 4 ft. 6 in. under the 60 fm. level, and we have 5 fms. 1 ft. 6 in. more to sink to finish the sump. I think we shall make good progress in sinking this month as the ground is very favourable. The cross-cut south, west of Walter's shaft, in the 60, driving by six men, at 7*l.* per fathom; here the ground has greatly changed since I reported last, and we have now very hard ground, with branches of quartz crossing the end, a good indication of being near another lode. The end west, in the 60, on Georgia lode, we have suspended for a time, and have put the men to drive on the new north lode, in the 40, where we have now two men and two boys driving at 40s. per fathom; this lode has a very promising appearance. The 60, driving west on Fisher's lode, by two men, at 50s. per fathom, and rising in the back of the same at 20s. per fathom; we expect to break some good average work from the back, as we have driven through a piece of tinny ground, and the end is not so good. Driving east, by two men, at 30s. per fathom; here the lode is 2 ft. big—saving work. Eliza's shaft we have sunk 1 fm. 1 ft. 9 in., the branch of tin through it still continuing, since I reported last, being a fortnight's work; here I have set the whole sump of 10 fathoms, to six men, at 14*l.* per fathom, and to complete all other work required for the same. In the 66 we have nine men sinking and stoping at 6s. 6d. per ton; here we are breaking a large quantity of stuff of a good quality, and wo intend to set on more hands in this level to stope as soon as convenient. In the 66 west, on Fisher's lode, we have two men driving at 30s. per fathom, and this is a promising lode. Driving east, by two men and two boys, at 20s. per fathom, and rising in the back of the same at 10s. in 1*l.* tribute; here we have a good tinny lode. In the 76 we are driving west on Fisher's lode, by three men, at 40s. per fathom; and east, by three men, at 40s. per fathom. Both ends, east and west, have greatly improved for tin this month. We have two men rising in the back of the 76, on the branch, from the Millpool Standard lode, at 50s. fathom; the lode is small, but is good saving work. The 60, driving west on Millpool Standard lode, by three men, at 50s. per fathom; the lode is 3 ft. big, carrying a little tin to stamp. I think we may shortly expect to intersect a lode here, as it has every appearance of it. In the 60 east we are stoping the back on the Millpool Standard lode, by four men, at 5s. 6d. per ton, but we intend to take these men after this week to stope the 66, where we are now breaking good tin-stuff. In the 20, west of Eliza's shaft, on Fisher's lode, we have three men stoping the back, at 30s. per fathom; here we are breaking a large quantity of stuff, but of low quality. We have four tribute pitches at work at 15s., 13s. 4d., and 10s. in 1*l.*—Trevean Mine: Driving west on the south lode, in the 30, by two men, at 30s. per fathom; and rising in the back of the same, by two men, at 30s. per fathom—this is a good tinny lode. I expect we shall break some good work from this place this month. Driving the 30 west, on the north lode, by two men, at 70s. per fathom; here the lode is not so good; but saving work, and we are pushing this end on with all speed, as we shall shortly make a communication through to the adit level, and also intersect the Neptune copper lode. We have two tribute pitches here in this mine working at 13s. 4d. and 10s. in 1*l.*—Hoskings's Shaft: We are driving the 40 west, by four men and two boys, at 60s. per fathom; the lode is from 18 in. to 2 ft. big, but which through not saving work at present looks very kindly, and letting out water freely; we are pushing this on with all possible speed, as we intend to make a communication through to the Chiverton Mine, this being the adit level, and will be leaving from 20 to 30 fathoms of backs to take away, the ore from the Chiverton 15 fm. level having averaged 14 lbs. to the ton. We hope shortly to send up some tinstuff from Trevelyan's, where we have put on tributers. Machinery in good working order.

FURZE HILL.—Wm. Doidge, Nov. 26: No. 1, North Lode: In the Midway level east we are got into firm ground, but no lode has yet been met with; the end is now being turned south as fast as practical, where we hope shortly to intersect it; the country is composed of a light blue slate, intermixed with small branches of spar, just the hardness and colour for the production of tin in this mine. The stopes in the back of this level are worth 12*l.* per fathom.—Middle Lode: The lode in the 54 east is split up in small branches, and at present unproductive. The average value of the stopes on this lode is 9*l.* per fathom. Our last parcel of tin weighed 3 tons 15 cwts. 2 qrs. 14 lbs., at 58*l.* 2s. 6d. per ton, and we are now as usual preparing another for market.

GAWTON COPPER.—George Rowe, George Rowe, jun., Nov. 20: The lode in the 117, east of King's shaft, is 4 ft. wide, of a very kindly appearance, and yielding occasional stones of mundic and ore. The drivage west of the same level is without change in character since last reported on. The lode in the stopes in back of the 95 is worth 6*l.* per fathom. The lode in the stopes in the bottom of the 82 is worth 8*l.* per fathom. The lode in the stopes in the bottom of the 70 is worth 12*l.* per fathom. The lode in the rise and stopes in the back of the 70 is worth 10*l.* per fathom. All other points are without change.

GOGINAN AND LEVEL NEWYDD.—Nov. 23: In the 100 going east the lode is without any material change, showihg a little lead and copper ores. We shall commence rising over this level against the shaft very shortly. Bryn Pica shaft is being carried down as fast as possible by nine men, and fair progress is now being made. The same remark may be applied to the western shaft, below the 80. We have now six men sinking this shaft below the 100, in a lode 6 ft. wide, which will produce 12 to 14 ewts. of lead ore per fathom. The water is nearly out of the 110, and we have commenced putting in timber at that level, clearing stuff, &c., preparatory to rising against the said shaft below the 100. All points throughout the mines are being pushed forward with the utmost vigour. The tribute pitches continue to produce about their usual quantities of ore. The surface work is going on regularly, and we have a good supply of water. The Borlase buddle is almost complete, with the exception of the large driving-wheel on the outer circle, which will leave the foundry this week.

GORSEDD AND CELYN LEVEL.—W. Edwards, Nov. 26: The appearances of the driving to cut the Merleyn vein are most satisfactory. There is now a sound in the level as if some open ground was before the forebreast, and the men seem confident of cutting the lode quickly. The tribute pitches and the driving on the Gorsedd lode are going on well.

GREAT RETALLACK.—J. Harris, Nov. 21: The lode in the 40 east has further improved for the production of blende since I last reported, now worth fully 6 tons per fathom—a fine looking lode.

GREAT RETALLACK.—John Harris, Nov. 26: I am glad to tell you the lode in the 40 was looking better yesterday for blende, and worth fully 8 tons per fm., a very fine looking lode. I am also pleased to say we are getting on pretty well with our dressing for the parcel. I am hoping to make it 30 tons by Wednesday.

GREAT WHEAL LOVELL.—Joseph Prisk, Nov. 26: In the 44 cross-cut south we have intersected the lode, and have commenced to drive east on its course. I am pleased to say it is 15 in. wide, and producing some excellent work for tin; so far as seen it has an excellent appearance. I shall be able to report more fully on it next week. In the 34 cross-cut south we have commenced to drive east on two branches, which will form a junction in a few feet driving, and will, no doubt, prove to be the main lode. The lode in the winze sinking below the 34 is still a little disordered, but from its present appearance I think it will improve shortly. The lode in the stope east of sump-winze is worth 7*l.* per fathom. The lode in the 34 end east is worth 6*l.* per fathom. The lode in the 34 end and stope, on the south part of the lode, is worth 4*l.* per fathom. In the 24 end east the lode is 18 in. wide, opening tribute. The lode in the stope east of Dally's winze is worth 4*l.* 10s. per fathom. The lode in the 14 end east is 1 ft. wide, and opening ground that will work tribute. The tributers are all breaking good tinstuff, and everything on the mine going on well.

ILLOGAN.—R. Pryor and Son, Nov. 25: The ground in the deep adit cross cut has slightly improved in its nature since our setting report of last week, and the men are making rapid progress in driving. The lode in the shaft continues just as when last reported on. There has been no further change to remark.

KINGSTON VALLEY.—G. F. Richards, Nov. 26: The lode in the 18 west is improved, and will produce a good quantity of blende and silver-lead ores combined. The lode here altogether is of immense size, and promises further yield. In the rise in the back of the 18 west the lode is increased in size, and will produce several tons of blende and silver-lead ores per fathom. In the winze sinking below the adit level the lode is also very large, of beautiful composition, and continues to produce a large quantity of blende and silver lead ores per fathom. We may now fairly calculate that the piece of ground—about 22 fms. in length, on the course of the lode, standing between the adit and the deepest point yet reached (18 fms. below adit)—will be a continously productive and important piece of ore ground, and we hope to effect a communication between the two levels in the course of another seven or eight weeks. The appearances of the mine are excellent, and, altogether promising for a very valuable mine being laid open.

LADYWELL.—Arthur Waters, Nov. 26: This mine looks well to-day, and bids fair to become a great property in depth. There is snow on the ground, and I am afraid the weather will retard our building operations. We shall push on with the work as fast as possible.

LOVELL (THE).—J. Nancarrow, Nov. 25: The lode in the 40 east continues very good, and the ground lately driven through is worth 80*l.* per fathom. We are driving the 40 west on the south part of the lode, which is of the same quality as in the east end, and if the end was driven the same width would be equally valuable; but the part carried is worth 40*l.* per fathom. There is good lode gone down in the bottom in each end. The rise in back of the 30 is worth 30*l.* per fathom. The ground in the 12 west looks more promising, and we expect a favourable change in the lode. The stope in the 12 east is worth 15*l.* per fathom.

MARKE VALLEY.—J. Seccombe, J. Stenlake, F. Renals, Nov. 20: Setting Report: The 141, to drive east on new lode, by nine men, at 22*l.* per fathom; lode 2 ft. wide, composed of mundic and stones of copper ores. To drive the 136 west, on course of Marke's lode, by four men, at 18*l.* per fathom; lode composed chiefly of capel and quartz, containing saving work for copper ores. To stope Marke's lode, west of winze, in back of the 124, by two men, at 3*l.* 10s. per fathom; worth 2½ tons per fathom. In the stope, east of winze, the men have not completed their bargain; lode worth 3 tons per fathom. To stope Marke's lode, in bottom of the 100, by four men, at 4*l.* 15s. per fathom; worth 4 tons per fathom. No. 1 stope, on Rosedown lode, in bottom of the 80, by four men, at 8*l.* 10s. per fathom; worth 6 tons per fathom. No. 2 stope, on Rosedown lode, in bottom of the 80, by four men, at 6*l.* per fathom; worth 5 tons per fathom. The four men employed in taking out side in the No. 3 stope, in bottom of the 80, have not yet completed it. To stope south part of Rosedown lode, in back of the 80, by four men, at 5*l.* 10s. per fathom; worth 4 tons per fathom. To drive the 70 west, on Rosedown lode, by two men, at 12*l.* per fathom; worth 1 ton of copper ore per fathom. In the 60 west, on Rosedown lode, we have put the men to take out portion standing on north side, the lode being large, composed of capel, quartz, and gossan, with 3 tons of copper ore per fm. To stope Rosedown lode, in back of the 60, by four men, at 5*l.* per fm.; worth 5 tons per fm. To drive the 50 west, on Rosedown lode, by two men, at 10*l.* per fm.: lode yielding from 1 ton to 2 tons of copper ore fathom, and very promising. We have four men sinking through a piece of ground in bottom of this level, preparatory to taking up a stope. To stope Rosedown lode, in back of the 50, by two men, at 5*l.* 10s. per fathom; worth 3 tons per fathom. The men in the stope, in bottom of the 40, on Rosedown lode, have not completed their bargain. To stope Rosedown lode, in bottom of the 30, by four men, at 4*l.* 10s. per fathom; worth 4 tons per fathom. To stope Rosedown lode, in back of the 30, by three men, at 5*l.* per fathom; worth 6 tons per fathom. The ground in the rise for new shaft, and in the new shaft, continues favourable killas, and good progress is being made. A pitch in back of the 112, on Marke's, by two men, at 10s. in 1*l.*; a pitch in the back of 112, on Marke's, by two men, at 10s. in 1*l.*; a pitch in the back of the 80, on Rosedown, by two men, at 3s. in 1*l.*; a pitch in the back of the 80, on Rosedown, by two men, at 11s. in 1*l.*; a pitch in the back of the 70, on Rosedown, by three men, at 7s. in 1*l.*; a pitch in the back of the 60, on Rosedown, by two men, at 7s. in 1*l.* The halvans at Salisbury stamps-floors, by one man, at 13s. 4d. in 1*l.*

— Nov. 26: Since the setting the new lode in the 141 has improved, and now yielding 1 ton of copper ore per fathom. The Rosedown lode, in the 70 west, has also improved to 1½ ton of copper ore per fathom.

NEW CONSOLS.—R. Pryor and Son, T. Jenkin, H. Vial, Nov. 25: There has been no change in the underground operations in this mine to remark since our setting report of last week. At surface, owing to the favourableness of the weather during the past week, we have been enabled to make good progress with our extensive buildings, &c., which in some places are rapidly approaching completion. Our machinery is working well.

NEW FOWEY CONSOLS.—T. Parkyn, Nov. 26: We are driving east on middle lode at the shallow adit, which is yielding rich work for tin. This lode was not seen in the workings of the celebrated Old Fowey Consols, it being a side lode. Nothing new to report on deep adit.

NEW HENDRA.—W. Rowe, Nov. 23: Pay and Setting Report for 21st inst.:—The deep adit end set to drive, by six men, for the month, price 10*l.* per fathom. Since passing the branch referred to in the last report the ground has become harder for driving, hence the increase in the price. We think, however, this unusual hardness of the end will prove to be of not long duration.

NEW ROSEWARNE.—E. Hosking, W. Bennetts, Nov. 21: Setting Report: The 67 fm. level, to drive west of Pool's shaft, by six men, at 11*l.* per fathom; the lode is 3 ft. wide, producing saving work for tin. The rise above the 58, west of Pool's shaft, by two men, at 8*l.* 10s. per fathom: the lode is 3 ft. wide, and worth for copper ore 5*l.* per fathom. The winze below the 46, west of Pool's shaft, by six men, at 9*l.* per fathom; the lode is 3 ft. wide, producing a little copper ore. We have also set six pitches to 23 men, at an average tribute of 12s. 4d. in 1*l.*, the tributers to be paid at the rate of 50*l.* per ton for black tin.

NORTH LAXEY.—R. Rowe, Nov. 19: I am unable to report anything new in the 121, driving north; the lode has a very promising appearance, and producing a little lead and blende. This week we have tapped a fresh feed of water, which is a good sign, and I have no doubt of shortly getting into good ore ground. The 110 end has been in disordered ground, but now getting clear, and the lode is again carrying a good rib of lead. We have started a rise in the roof of this level, which is worth 2 tons of lead per fathom. The 84 end, driving north, is in disordered ground, but the lode produces saving stuff for lead. The stopes in the roof of the 60 are worth 1 ton of lead per fathom. We have 20 tons of lead dressed.—P.S. I reckoned on a boat leaving here this morning, but there was none; this, therefore, will be too late for Saturday's Journal. If there is anything at all fresh I will take care to write in time for the next Journal, as I hope to be at the mine, and go underground on Tuesday.

NORTH HENDRE.—J. Lean, Nov. 26: No particular change has taken place in the mine since last report, except that a little water has made its appearance in the north and south main levels, which has temporarily hindered us. I hope to get the force pump fixed on Saturday next, having received a letter from the foundry to say it will be ready to-morrow. The pipes to carry the water from the pump are in their places.

NORTH POOL.—W. C. Vivian, F. Clymo, Nov. 26: The appearances to-day are equally as good as noted in my last, and although we should according to the dialling have struck the lode, still I am perfectly satisfied it is before us, and very close too.

NORTH PRINCE PATRICK.—J. Jones, Nov. 27: In my last report I mentioned of an improvement in the driving along the Silver Rake vein, I am sorry it is not in my power to inform you that there is more lead to be seen, but the ground still improves for driving. We have passed two cross-partings in the course of this week, which goes far to prove that we are nearing a cross-lode, which must be the Pwllygaseg vein. We have now driven 8 or 9 yards along the vein, the greatest part of which was very hard to drive. Before writing my next report the partition at the bottom of ths shaft will be completed.

NORTH TRESKERBY.—R. Pryor and Son, Nov. 25: Since our report of last week we have observed no change to notice either in the tutwork or tribute department of this mine. Saturday next being our pay and setting day a full report shall follow.

OLD BOTTLE HILL.—R. Unsworth, Nov. 25: In the 46, east of Rowe's shaft, on Bucking-house lode, the lode is 1½ ft. wide, producing saving work, and the lode has much improved since last report. In the winze in the bottom of the 36 the lode is about 2 ft. wide, and worth 5*l.* per fathom. The tribute is much the same.

OLD TINCROFT CONSOLS.—J. Pope, Nov. 25: No change worthy of notice in any of the bargains since last reported on, which are still producing the usual quantity of tinstone.

OLD TREBURGETT.—Wm. Hancock, W. T. Bryant, Nov. 25: We have communicated the winze under the 60, north of shaft, to the 70, and squared it down; the latter level is now well ventilated, and we have resumed driving the end again, and set another stope in the back of the level to four men, and one more in back of the 80 south to three men, and suspended No. 3 stope in back of the 60, and put the men to assist to sink the winze below, which is about 10 fms. in advance of the 70 end south. Other places much the same as at our setting report. We are sorry to inform you that yesterday afternoon the caps of the main rod parted below the adit, and did other damage at the shaft, but fortunately not to the engine. We hope to get it all put right and the engine working some time this afternoon. We sampled to day two parcels of silver-lead ores, of the usual quality. No. 1 (computed) 35 tons, No. 2 (computed) 8 tons, for sale on the 3d proximo.

PARYS MOUNTAIN.—T. Mitchell, Nov. 26: The stopes are all yielding much as usual, excepting the 80, west of cross-course, where the lode at present is disordered and mixed with chert rock. Some of the tribute pitches are looking very well. The trial cross cut at the 65 continues to progress favourably. Saturday next will be our setting day.

PEDN-AN-DREA UNITED.—W. Tregay, Wm. Prideaux, J. Pope, Nov. 21: In the 160 west the lode is looking very promising, and at present produces about 10*l.* worth of black tin per fathom. There is no change to record in any of the other underground points of operation since the report to the general meeting. We sold on Wednesday at Redruth 15 tons 11 cwts. 1 qr. 15 lbs. of black tin, for 58*l.* 2s. 6d. per ton—90*l.* 19s. 2d.

PENNERLEY.—W. T. Harris, J. Delbridge, Nov. 24: The lode in the 130 west contains some good stones of lead, and indications are more favourable than for some time. The lode in the 120 driving east is unproductive, but we think it advisable to push forward this end into more settled grownd, when, no doubt, the lode will become productive. The lode in the 100, on east and west, is 2 feet wide, producing 1½ ton of lead per fathom. The level driving west on Big Ore lode is yielding 10 cwts. lead per fathom. The stope in the back of this level is worth 1 ton lead per fm. The 80 driving east, on east and west lode, is at present unproductive, but favourable for progress; a little water is oozing from the end, which is an important feature, and an early change may be looked for. The lode in the winze sinking below this level, on Big Ore, is 4 ft. wide, producing occasional stones of ore. The lode in the 70 driving east is worth 1 ton lead per fathom; we expect an improvement in this driving as we near the east and west lode, which is about 6 fms. in advance. No. 1 stope in bottom of the 60, on Warm Water lode, is worth 3 tons lead per fathom. No. 2 stope is worth 1½ ton per fathom. No. 1 stope in back of this level is worth 2 tons of lead per fathom. No. 2 stope is worth 2½ tons lead per fathom. No. 3 stope is worth 1¾ ton per fathom. The lode in the 40, driving west on north lode, is 2 ft. wide. worth 1½ ton lead per fathom. The rise in back is producing 2 tons lead per fathom. We purpose sinking a winze below this level, on the course of the lode, to prove it, preparatory to driving a cross-cut at the 60. The 25 cross-cut driving south to cut Warm Water lode, is making fair progress, and ground favourable. The winze sinking below this level is producing 2 tons lead per fathom.—Potter's Pit: The 65 driving west is just entering the productive ground; the lode is yielding some good stones of ore; as soon as convenient we shall commence driving east, believing there are other runs of lead in that direction. The 55 driving west, on foot of the lode, is worth 1 ton of lead per fm. The winze sinking below this level is worth 3 tons lead per fathom. No. 1 stope in back of this level is worth 1 ton lead per fathom. No. 2 stope is worth 1½ ton lead per fathom. No. 3 stope is worth 1 ton per fathom. The rise in back of the 45, on caunter lode south, is worth 1 ton lead per fathom, and very promising. A stope in back, on north lode, is worth 1¼ ton per fathom. In the 35 cross-cut, driving south to cut caunter lode, the ground is favourable; we have about 3 fms. to drive here to cut the lode. The sinking below this level, on north lode, is worth ¾ ton lead per fathom. The rise in back of the 25 is worth ¾ ton per fathom. The rise in back of the 15 is worth 1½ ton lead per fathom. The 80 tons lead sold realised 15*l.* per fathom.

PERSEVERANCE.—W. Rich, W. Hambly, Nov. 25: We are cutting through the lode in the 50 fm. level end, west of engine-shaft, and have driven south into the lode about 6 ft., but not yet cut through it; as far as seen the lode has a most promising appearance, it being composed of friable quartz, chlorite, and a little tin. The branch in the bottom of the engine-shaft carries good stones of copper ore; this shaft is down some 17 fathoms below the 50. The ground is easy for sinking the skip-shaft at Clyjah Mine.

PLYNLIMMON.—G. Garland, Nov. 23: In the 24, east of Hughes's winze, the lode is 4 ft. wide, composed of calc-spar, mundic, blende, and occasionally stones of lead ore, with every indication of soon becoming highly productive. In the rise over this level, in the line of the new shaft, the lode is 1 ft. wide, composed of carbonate of lime, mundic, and lead ore, producing of the latter—for length of rise, 11 ft.—1½ ton per fathom. The lode in the 12, west of engine-shaft, is still disordered by cross heads. In the cross-cut north of this level, towards the north lode, the ground is easier for driving, containing several parallel joints, which facilitates progress. A stope in bottom of the 12, west of engine-shaft, yisldS ¾ ton of lead ore per fathom. A stope in back of the adit level, east of cross course, produces ½ ton of lead ore per fathom. Another stope in back of the same, west of cross-cut, gives fully 1 ton of lead ore per fathom. Since my report of last week, having had a favourable change in the weather, drawing and dressing have been resumed, and good progress is now being made towards making marketable another porcel of lead ore, which I hope to get ready about the usual time for our monthly sale. The pitwork and all machinery throughout the mine is in good working order.

PRINCE OF WALES.—J. Gifford, J. Pryor, Nov. 24: In the 77 east the lode is split up in branches, composed of quartz and spots of copper ore, but not to value. In the 65 east the lode and capel is 4 ft. wide, containing occasional stones of ore, and very hard for driving; present price 10*l.* 10s. per fathom. No other change to notice.

PRINCE OF WALES.—J. Gifford, J. Pryor, Nov. 26: There is no change in any part of the mine. We sample about 100 tons of good quality ore to-morrow.

RHEIDOL.—J. Ridge, Nov. 21: The engine shaft to sink below the 20, by six men, at 13*l.* 5s. per fathom; the ground gets stronger and harder as depth is gained, which is a favourable indication of the lode being found more productive for lead ore at the next level; the rock is quite of a different character below the 20 to anything seen in this mine. The 10 to drive west, by two men, at 6*l.* per fathom; the part of the lode carried (5 feet) is composed of slate, spar, carbonate of lime, and a good strong mixture of lead and blende, 2 ft. wide, good saving work for dressing, with a promising appearance of improving, as the level is extending under the workings in bottom of the adit level. To stope in back of the 10, east of shaft, by two men, at 3*l.* per fathom; worth 30 cwts. of blende, and 5 cwts. of lead ore per fathom. I will pay bills, and return receipts to you next week.

ROMAN GRAVELS.—Arthur Waters, Nov. 26: On the whole, the main points in the mine are looking a little better than when reported in the last setting report.

SHELVEPOOL.—Arthur Waters, Nov. 26: The total length of adit from the Old Grit Mine boundary south, towards Shelvepool shaft, is 58 fathoms; lode in present end looks kindly, and is letting out a considerable stream of water. No doubt our being on the right track to a bunch of ore here.

SOUTH GREAT WORK.—S. J. Reed, Nov. 26: Flat-Rod Shaft, Orchard Lode: The shaft is now in fair course of sinking below the 35; the barrow lode has been excavated, and penthouse fixed. In the 35 west the lode is being driven on by four men, and is worth 13*l.* per fathom. A rise in the back of the level east is being put up to meet the winze from the 25, and is worth 8*l.* per fathom. The rise in the 25 is worth 6*l.* per fathom, and improving.—Engine-Shaft, Great Work Lode: In the 20 west the lode is 2½ ft. wide, with a rich leader of tin, worth 16*l.* to 18*l.* per fathom. Since we passed the cross-course a large quantity of water has been cut, and entirely drained the winze below the 10, where the lode is 5 ft. wide, and worth 11*l.* per fathom. In the 10, west of shaft, the lode shows signs of improvement, and tribute ground is being opened up. The rises, in the backs of both the 10 and 20, against Woodstock shaft, are being proceeded with as fast as the nature of the ground will permit, and when communicated will be a great advantage in working this part of the mine. The supply of water for the stamps wheel has materially increased.

SOUTH PRINCE PATRICK.—John Jones Nov. 25: Owing to the heavy rains we have had here the last nine or ten days the water has been so strong as to prevent us from driving any further northwards in Parry's lode until to-day, but I am glad to say it is only surface water, and as soon as it ceases running will drain itself out in a short time.—The Northern Shaft: The water is so strong here also that I though it better to take the men from here to Parry's lode to assist the others in raising, so as to have plenty of stuff on the washing-floors before next sale. It is premature to say what quantity I can sell, on account of this stoppage, but will not fail to do the best I can under the circumstances.

SOUTH ROSAN GRAVELS.—J. W. Powning, Nov. 26: The engine-shaft is 31 fms. deep from surface, and the lode at present bottom of shaft is of great strength and of similar character to the rich lodes of the district. The 20 end east is being driven by six men in a lode 3½ ft. wide, composed of carbonate of lime and good stones of lead ore; we are evidently entering productive ground in this level. The 20 end west is being driven on a lode averaging full 5 ft. wide, composed of carbonate of lime and nice stones of lead ore, of an exceeding promising character. We have had a cavity in the last 3 fms. driving, in which we found some splendid loose lumps of ore, and also find a solid branch of lead standing on the north side, worth quite 20*l.* per fathom. Under this branch is a course (3 ft. wide) of carbonate of lime, nicely charged with lead—saving stuff.

SOUTH TOLCARNE.—J. Vivian and Son, J. Paull, Nov. 26: The engine shaft is now about 7 fms. 4 ft. below the 20, where the lode is 2½ ft. wide, and yielding some good tinstone. In the 20 west the lode is about 2 ft. wide, and has a kindly appearance.—Fraser's Lode: In the 20, east of cross-cut, the lode is 3 ft. wide, producing a little copper. In the 20, west of cross-cut, the lode is 2 ft. wide, containing a little tin. There is more lode standing to the north and south of this end, which will be cut into after we have advanced further.

SOUTH WHEAL FRANCES.—A. T. James, John James, John Opie, Nov. 21: In Pascoe's shaft, since the last meeting, 30 fms. of flat-rods and 30 fms. of pumps have been placed in working position, pole fixed at the 175, and the water drained to this level, and we hope by Wednesday next to resume the sinking of this shaft, below the 175, by nine men, at 20*l.* per fathom. The 134, west of cross-cut, by three men and three boys, at 12*l.* 10s. per fathom. The lode is 3 ft. wide, producing low quality tinstuff, and presenting a very promising appearance. The 124, west of cross-cut, by six men, at 12*l.* per fathom; the lode is 4 ft. wide, worth 15*l.* per fathom. The 124 winze, east of cross-cut, by four men, at 13*l.* per fathom. The lode is 4 ft. wide, worth 10*l.* per fathom, and looks kindly for further improvement. Two stopes in the back of the 124, to 15 men, at 6s. 6d. per ton; the lode is 6 ft. wide, and worth 12*l.* per fathom in each stope. The 114, west of cross-cut, by four men, at 10*l.* 10s. per fathom.; the lode is 4 ft. wide, worth 10*l.* per fm. The 114 stope, east of cross-cut, by six men, at 6s. per ton; the lode is 6 ft. wide, worth 10*l.* per fathom. The tribute department continues much as usual.

ST. AGNES CONSOLS.—W. Vivian, Nov. 26: In the engine-shaft, at the 72, we continue to open on the flat lode north and south of the shaft. The lode is 3 ft. wide, very rich for mundic, with good stones of tin and copper ores. We have opened about 10 fms. on the lode, through a rich course of mundic.

ST. DAVID'S.—J. Jones: We have not been able to get on with the repairing of Jones's shaft as quickly as I expected, owing to the old timber giving way; but we have now, I believe, secured the worst part of it. The only change to notice in Edwards's shaft is that we are opening more lead ore ground. The south drift is the same as when last writing, and also the roof and floor. I expect our rough wooden shed at the washing-floors, which we stand so much in need of, will be completed by Saturday next, and I expect our other offices will soon be completed.

ST. DENNIS CONSOLIDATED.—T. Parkyn, Nov. 26: The contractors are making good progress in constructing the new tram incline, and will complete it in a fortnight's time, which will be several days before the time stipulated.

ST. JUST AMALGAMATED.—R. Pryor and Son, Wm. Bawden, T. Richards, Nov. 24: The lode in Saveall's engine-shaft, sinking below the 120, is increasing in size, presents a more kindly appearance, and is of greater value than for some time past, and we hope soon to be able to report on a good lode of tin at this point. In the 120, driving east of engine-shaft, from the fact of the ground having become much easier for driving, and the lode presenting important indications, we consider that our good opinion of the future results from this point will be speedily realised. There is no change either in the tutwork or tribute department of this mine rendering further comment necessary.

TANKERVILLE.—A. Waters, Nov. 21: The general report submitted to the last annual meeting being, it was said, exhaustive, and that document being fresh in your memory, if not still in your hands, it will be unnecessary for me on this occasion to go into matters and over ground previously considered and dealt with in connection with the development of the mine. When the shareholders were last assembled in general meeting on the mine, we had been for some time and were then raising about 75 tons of lead ore per month, and the report explained why the returns had dwindled so low, pointed out the marked improvement in all the main points from the 74 to the 152, west of Watson's shaft, and spoke very hopefully of steady, gradual improvements and increased returns. In less than six months the yield of the mine has increased about 35 per cent., and we are in a far better position now to get 100 tons than 75 tons per month in August last. And from the way in which the pioneer levels are opening out we hope to by the end of the next half-year to have to have to report further progress in every way than in the preceding one. The last setting report gives the valuation (and there is no change of note since) of the various points under development, by which you will see that there are 20 bargains at work, yielding in the aggregate 40 tons per fm., which gives 2 tons per fathom for all the ground cut in the mine, including cross-cuts, &c. We have uncovered a rich run of ore in the 18. The 140 is driven west of shaft, and the indications brought to view daily in the 152 west enable us to speak with confidence as to finding in that level a course of lead as rich as (if not richer than) in the level above. The said run of ore is 7 ft. wide, and presents all the characters of a deep and lasting mine. In the 152, east of shaft, we are cross cutting north and south, and believe discoveries of importance will be made there. In the 140 east (the further level east on Tankerville lode driven in the mine) we are several fathoms through the bed of country which cut off the great bunch, and have a lode 2½ to 3 ft. wide, worth 2 to 3 tons lead ore per fathom, and improving as we advance. This end is going forward into new ground which is whole to surface, as well as downwards, and provided it continues to open out as we see it now, it will give us immense reserves without sinking deeper. The 120 west, on main lode, is driven altogether 14 fms., and is now 4 fms. west of the bed of country which cut off the great bunch in that end of the mine. The lode here, like that in the 140 east just spoken of, is 2½ ft. to 3 ft. wide, worth 2½ tons of lead ore per fathom, and is making away in new ground beyond the end of every other level in the mine, and therefore it is looked upon as a pioneer level of the greatest importance to the company. I shall be surprised if this level does not lead us west to a great shale bunch of lead ore. The 120 west, on south lode, is opening ground that will stope at a small profit. The 120 cross-cut north is driven about 13 fms., and is now 3 ft. into the lode mentioned in the setting report. Good orestuff was cut into by the men on Thursday night, and yesterday still better-looking stuff was broken from the extreme end of the cross-cut, and there is yet no sign of being through the lode. The ends, west of shaft from the 74 fm. level to the 110 fathom level, have neither of them been driven far enough to reach the bunch now seen in the 140, and through the bed in the 120, and, therefore, we are really only now beginning to work Tankerville. Such is my opinion. Last month we made a profit of 400*l.*, and the sale of 100 tons for 1492*l.* 10s. this week will give us 450*l.* to 500*l.* profit for the month. Confining operations as we had to do in times past, to sinking the shaft and exhausting the ore immediately adjoining it, as we went, was a mode of working that provided no scope of ground to employ men on, nor did it lay open available reserves, like the driving of levels without limit does. Now we are in a position to explore at all points, and as the trials made since the completion of the shaft have thus far led to the results anticipated, I do think the time is not far distant when Tankerville will be able to go abreast with her great neighbour, Roman Gravels.

TANKERVILLE.—A. Waters, Nov. 26: I am glad to be able to tell the shareholders that the mine is looking much better than it did a week ago, and if the prospects now in sight in the 152 and 146 west, the 140 east, and particularly in the 120 west on main lode, are really what they seem, Tankerville is all right.

TRELEIGH WOOD.—E. Hosking, W. Goldsworthy, Nov. 21: Setting Report: The 44 fm. level cross cut, to drive south through the lode east of the cross course, by six men, at 15*l.* per fathom. The tin lode is all standing at this level, and, judging from the lode in the level above and in the winze, we expect to find a good lode at this place. To stope the back of the 44, west of the engine shaft, by nine men, at 8s. 6d. per ton; the lode is worth 12*l.* per fathom. To stope the back of the 44, west of the engine-shaft and east of the rise, by four men, at 8s. per ton; the lode is 6 ft. wide, and worth 10*l.* per fathom. To stope the bottom of the 34, east of the engine-shaft, by four men, at 6s. 6d. per ton; the lode is 8 ft. wide, and worth 9*l.* per fathom. To stope the bottom of the 34, east and west of Uren's winze, by ten men, at 5s. per ton; the lode is 8 ft. wide, and worth 15*l.* per fm. To stope the 34, east and west of ground, by eight men, at 6s. per ton; the lode is 12 ft. wide, and worth 20*l.* per fathom. To stope the bottom of the 34, west of the engine-shaft, east of Hicks's winze, by four men, at 4s. per ton; the lode is 5 ft. wide, and worth 8*l.* per fathom. To stope the back of the 34, east of Harris's winze, by six men, at 6s. per ton; the lode is 5 ft. wide, and worth 10*l.* per fathom. To stope the back of the 34, west of Harris's winze, by ten men, at 5s. 6d. per ton; the lode is 8 ft. wide, and worth 12*l.* per fathom. To stope the bottom of the 24, east of Windmill shaft, by four men, at 6s. 6d. per ton; the lode is 5 ft. wide, and worth 8*l.* per fothom. We have a great deal of water, but the engine and pitwork being in good condition we have been able to keep the water without any hindrance to the men, and the stamps are now well supplied with tinstuff.

TREVARRACK.—James Pope, Nov. 25: The engine-shaft is 13 fms. 3 ft. below the 60, and the lode is 3 ft. wide, composed of peach, mundic, and iron, with stones of tin. In the 60 east the lode is 2 ft. wide, composed of peach and iron, with stones of tin, but not enough to value.

TYLLWYD.—Capt. Paull, Nov. 26: I am glad to say that our opertions here are being pushed on as fast as possible. The 20, west of cross-cut, south of engine-shaft, is improving, the lode being 2 ft. 6 in. wide, yielding from 12 to 15 cwts. of lead ore per fathom, and looks well for further improvement. The lode in the south-west level is 5 ft. wide, worth fully 25 cwts. of lead ore per fathom. Here we are laying open some very valuable ore ground. Machinery all right, and going well.

UPPER TYDDYN AGNES SLATE QUARRY (Nanttlle).—Morris Roberts, Nov. 20: I have sent to the company's offices, Moorgate street Chambers, Moorgate street, E.C., a box of sample slates showing quality of rock in level, and also beyond the granite. The slates from No. 1 bargain are about one yard only from the surface. Since the quarry came to the possession of the present company the level was covered over by the fall of the road, so that we could not get into it up to last month. Being anxious to ascertain the nature of the rock, and the quality of the slate, in the level, I put a man there for a day or two to make slates, and am glad to say that the slates he made there are of the best quality. No. 1 bargain has very much improved, owing to the post or fault; I at one time felt anxious about this post, but we have now got into excellent rock beyond it. A much larger quantity of slate would have been made had not the granite been in our way.

VAUGHAN.—Nov. 23: In the deep adit level east the lode is large, chiefly composed of a light clay-slate and carbonate of lime, and has become a little stronger and harder for exploring.

WEST GREAT WORK.—S. J. Reed, Nov. 25: Men are engaged securing Watson's shaft below the shallow adit, and preparing it for drawing stuff from the deep level. Several tributers are engaged here, and the lode improves in value as we go down. In the drivage, west of Trescow shaft, the lode is worth 8*l.* to 10*l.* per fathom. We cannot, however, at present follow it by sinking, as the water has rapidly increased, and we expect soon to get the machinery to work on this part, when we shall be able to sink on a good lode of tin. We are clearing the levels west of skip-shaft, and we have broken rich stones of tin from the western end. This point is near the junction of the Great Croft Gothal lode, and we expect further discoveries shortly.

WEST MILWR.—Wm. F. Holway, Nov. 25: We have a nice east and west parting, containing lead ore and blende, in the cross cut south from West Meadow shaft. Our progress continues steady and satisfactory.

WEST TANKERVILLE.—A. Waters, Nov. 26: The south boundary shaft is now down to a point where the footwall division of caunter lode comes into it, which portion of the lode is worth 15*l.* per fathom. The west part of the lode will soon be in junction with the east portion, when we expect the coming in of a good bunch of ore. The shaft is now 11 fms. below the 50. The winze from the 46 is holed to the 50, and the east portion, and that on the hanging side, together are worth 2½ tons lead ore per fathom. We hall have the ground square and the 50 south ready to go forward again by the end of next week. The 46 north, on No. 2 caunter lode, will be commenced at the beginning of next month; lode worth 14*l.* per fathom. We shall also be able to sink a winze below the 46, on No. 1 caunter lode, in a bunch of lead worth 3 tons per fathom. The parcel of lead (25 tons) sold to-day for 15*l.* 6s. 6d. per ton, and one of blende (40 tons) for 3*l.* 13s. 6d., and are both ready for delivery.

WEST WHEAL GORLAND.—J. Mayne, Nov. 26: Good progress is being made in driving the 42 west from Messer's shaft; the level is now driven 2 ft. through a large lode, at present a little disordered, and worth fully 10*l.* per fathom; we are daily expecting an improvement in this end. The lode in the stope in the large bottoms, 10 fms. further west, or the part we are carrying, is worth 50*l.* per fm.; there is a large piece of lode standing south; we are now going to drive on the north part with a view to communicate to the shaft; this drivage will be pushed on with all dispatch. The lode in the 42, driving west, is worth 30*l.* per fathom. The lode in the stope in the back of this level is worth 10*l.* per fathom. The 32, driving west on the north part, produces occasional stones of tin, with a promising appearance. The pitches, on the whole, on the south lode are looking tolerably well, and the men earning fair wages.

WEST WHEAL TOLGUS.—Nov. 25: We are getting on very well in forking. The rod below the 85, which lately broke, is now repaired by plating, and we are trying to make sure of everything until the water can be got out. If things continue all right the 105 end men will be able to begin to work to-night. There is no alteration in the 95 end, but we hope we shall be able to see more of the lode to the south by Friday. The winze below the 85 is about 6 ft. wide, yielding fully 7 tons of ore per fathom. The stopes in the back of the 85 are without alteration. The 85 end is costing 9*l.* per fathom to drive; there has been about 9 feet driven since setting-day, and the last 6 ft. has yielded 5 tons of ore. The ground is better for driving than it was, and the lode is letting out pretty much water; we now call the end worth 6 tons of ore per fathom, good ore. The lode in the 75 end is small and poor; the ground about the lode is very much disordered by killas and white elvan.—Richard's Shaft: The ground is also disordered, and the lode broken up and mixed with white elvan, but good for sinking. We shall be able to have but little of the bottom level ore to sample next time, but we shall be equal to any former one. In the first sampling we think we are safe for 250 tons.

WHEAL CREBOR.—J. Gifford, J. Pryor, Nov. 25: The 120 east is poor. The lode in the stope in the bottom of the 120 is worth 20*l.* per fathom. The lode in the stopes in back of the 120 is still worth 30*l.* per fathom. The lode in the 108 east is 15 in. wide, composed chiefly of capel and flour-spar, with occasional stones of lead. The lode in the 72 east is 4 ft. wide, and of much the same character as for some time past. In the 48 east the lode continues large, and yields good stones of yellow copper ore, but not enough to value. The lode in the stope in the back of the 48 has fallen off in value, and yields now only a little saving work, but not sufficient to pay for stoping.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 21: We are still cutting through the lode at the 160, which is worth 35*l.* per fathom. The lode in the 150, east of cross-cut, is improving, now worth 18*l.* per fathom. The lode in the western end is worth 15*l.* per fathom. The stope below the 140 is worth 12*l.* per fathom. The lode in the 140, east of cross-cut, is worth 10*l.* per fathom. The stope above the 140, east of cross cut, is worth 15*l.* per fathom. The stope above the 140, east and west of rise, is worth 16*l.* per fathom. Both of the cross-cuts north at the 130 are being pushed on with all possible dispatch. The lode in the 130, east of north shaft, is 18 in. wide, and producing stamping work. The stope above the 120, west of rise, is worth 12*l.* per fathom. The stope below the 110, west of winze, is worth 12*l.* per fathom. The stope below the 110, east of shaft, is worth 10*l.* per fathom. We yesterday attached the new axle to the engine, and it works well.

WHEAL KITTY (St. Agnes).—Stephen Davey, John Williams, Nov. 21: We have no change in any of the bargains calling for remark, except in the 42 west, which is presenting appearances of a very marked improvement.

WHEAL MARIA AND FORTESCUE.—W. Skewis, N. Coward, Nov. 26: There is no alteration of importance to notice in the value or appearance of the different points reported on since last week. Our computation of copper ore for next sale is 150 tons of good average produce. The kilns are working well, and producing the usual quantity of arsenic.

WHEAL PEEVOR.—A. T. James, Nov. 25: The shaft is not yet quite through the slide, the western end of the shaft is pretty nearly through it, and the lode is looking well, and improving every foot we sink; I am very pleased with its appearance to-day, and have every reason to believe the best has not yet been seen. The shaft is worth 60*l.* per fathom; the 48 west, 12*l.* per fathom; and the tribute pitches are looking well.

WHEAL UNY.—W. Rich, M. Rogers, W. Rich, jun., Nov. 21: The lode in the 40, west of incline shaft, is worth 8*l.* per fathom. A stope in the back of this level is worth 12*l.* per fathom. The rise in the back of the 120 west is worth 10*l.* per fm. The 130 end west carries a little tin. The 140 west is worth 10*l.* per fathom. The rise in the back of the 150, towards the incline, is poor, and ground stiff. The 160, west of engine-shaft, carries a little tin. The 160 end east is worth 6*l.* per fathom. We have holed the rise in the back of the 160 east with the bottom of the 150; this has given good ventilation. The 150, east of Goodinge's shaft, is unproductive. The 140, east of King's, is worth 12*l.* per fathom. The 130 end east is worth 10*l.* per fathom. The 120 east is worth 20*l.* per fathom. The 110 east is worth 8*l.* per fathom. A winze in the bottom of this level is worth 12*l.* per fathom. The 100 end east is worth 7*l.* per fathom. We are making good progress at Hind's shaft, and have 12 able men employed there. We have to-day sold 15 tons 3 cwts. 0 qrs. 17 lbs. of tin, the produce of the past fortnight.

WHITEHAVEN IRON MINES.—T. Rosewarne, Nov. 25: Report of progress made for month ending Nov. 14: Midway drift has been driven by two men 4 fms. 2 ft. 6 in., at 3*l.* 10s. per fathom; the lode is showing a better appearance for making ore than it has for some time past. No. 1 drift has been driven by four men 9 fms. 2 ft. 6 in., at 3*l.* and 3*l.* 10s. per fathom; the lode is much improved this last week, so that we have every reason to believe that we are getting into a run of good ore ground. We are now passing under the summit of the hill, the ground is easy for driving, and the men are working well and making good wages. The stope in back of this drift is worked by four and five men on day work. We have had the footwall part of the lode taken out at the south end of the stope, where I now find the lode to be fully 14 ft. wide, and will yield about 70 tons of ore per fathom. I am having this stope put into good working order, so that we shall be able to take away the ore cheaply when the railway is opened. Side vein, No. 1 drift, has been driven by one man and one boy 5 fms. 5 ft. 6 in., at 2*l.* 10s. and 3*l.* per fathom; the lode is looking very promising, and to all appearance will soon become as productive as ever. Intermediate drift has been driven by four men 5 fms. 1 ft. 3 in., at 8*l.* and 6*l.* 10s. per fathom; the lode is not looking quite so good as when last reported on. The new drift, driving south of rise, has been worked by four men 5 fms. 4 ft. 3 in., at 5*l.* and 6*l.* per fathom; the lode is looking better, and will now yield about 10 tons of ore per fathom. I have set both the intermediate and new drifts to the men to hole to each other, which I think will be completed this month, and when done will greatly improve the working of this part of the mine. Side vein in No. 2 drift has been driven by four men 4 fms. 4 ft., at 5*l.* and 6*l.* per fathom; no change in the lode to notice since my last. No. 3 drift has been driven by four men 4 fms. 1 ft., at 8*l.* and 9*l.* per fathom; the lode is fully 9 ft. wide, and strongly impregnated with ore. I am expecting to see a change in the lode every day for the better. Side vein in this drift has been driven by two men 2 fms. 7 in., at 7*l.* 10s. per fathom; the lode has a little improved this past month. No. 4 drift has been driven 6 fms. 2 ft. 5 in., by six men, at 7*l.* per fathom. We are having this drift pushed on with all possible speed. The lode is large, but at present mixed with stone; this, I think, will soon wear out. No. 5 drift has been driven 6 fms. 5 ft., by six men, at 9*l.* and 6*l.* per fathom. The lode is large, producing some good stones of ore. We cut a large stream of water last night, and it is washing out some very rich stones of ore. The indications are so good that I am expecting to cut into a large course of ore every day. You shall hear per wire to-morrow morning if I see any change in the lode worthy of notice. The No. 2 drift at Blea Tarn has been driven by two men 4 fms. 1 ft. 9 in., at 6*l.* and 4*l.* 10s. per fathom. No change in the lode to notice since last reported on.—Ban Garth: No. 2 drift has been driven 2 fms. 2 ft. 6 in., by three men and one boy, at 9*l.* and 10*l.* per fathom. I see no change in the lode to notice. The day men are pushing on with the levelling of the ground, extending the incline road down to meet the railway. We have now employed 46 miners, four boys as miners, four day men, one smith, one timber-man, and and four boys on surface: total, 60. Ore carted to Drigg during past month, 185 tons 10 cwts. 2 qrs.

— T. Rosewarne, Nov. 26: I am glad to tell you that the lode in No. 5 drift has greatly improved since yesterday morning. The orey part of the lode is now about 3 ft. wide, and will yield about 10 tons of ore per fathom. The small veins of ore are still coming in from the eastern side, and forming themselves into one body of ore on the footwall. If I see any more improvement by to-morrow morning I will let you know by wire. The lode in No. 1 drift is still improving.

ECHOES FROM THE MINING MARKET.

There is still only a moderate amount of business doing in mining shares, although the various conditions of the metal markets are decidedly improving. Many rumours have been current in Cornwall of an actual advance in the tin standard; but, although the full prices are being given for ores, the fondly-expected movement has not yet taken place. We think an important change can hardly be expected until after the forthcoming Banca sale. In London, probably on account of the nearness of this sale, the metal is a shade easier, but transactions have not been numerous. A brisk business can hardly be expected at this particular season of the year, but there are some reasons for hoping that with the advent new year we shall have a better market for tin. The late controversy in the *Times* about the state of the copper market has served to elicit some very gratifying statements as to the causes of the present buoyant condition of this particular metal for investors in copper mines. It had been asserted by a correspondent of the journal in question that speculative influences had been at work, and that the increased quotations were due not so much as to the legitimate influences of an increased demand as to certain "bull" operations. This, however, has been satisfactorily disproved by a leading firm in the trade, who have entered at detail into the subject, and have proved that it is to legitimate causes alone—the actual excess of *legitimate* demand over supply—that the present firm state of the market is owing.

It appears that the consumption of the metal is increasing yearly, and that "a special reason for this increased consumption is the gigantic demand for war purposes in the shape of metallic cartridges." The actual consumption for this purpose appears difficult to estimate, but one thing is very certain, and that is that great as it has been it is still increasing. It is stated that it is this alone that has enabled us to absorb the surplus stocks of the world which have been attracted hither by the high prices of 1872, as well as the Lake Superior shipments of ingots thrown upon our markets, in consequence of the late financial crisis in America. Although the latter country has sent us very large supplies since the commencement of the year, stocks have decreased to a very important extent, and it is stated that the present monthly consumption is 1000 tons in excess of supply. With such a condition of affairs the upward movement of the market is easily explained; and as stocks are thus seen to be decreasing month by month, whilst supplies are not keeping pace with the demand, we may expect to see copper much higher than it is at the present time. We are glad to find that our remarks upon the subject last week, when we said, "Supplies are not yet up to demand here, and as it is believed that the business being done is genuine, and not due to speculative inflation of the market, and we may expect to see the advance continued," have been so fully borne out by actual statistics. The importance of these to shareholders in our copper mines can hardly be ever estimated.

In the colliery market business has been brisk, and such favourite stocks as

Thorp's Gawber Hall, Cardiff and Swansea, Bilson and Crump, Welsh Freehold, and others have been dealt in to a very large extent. In the first named especially has business been on an extensive scale, but a greater part of this has undoubtedly been due to "Bears" buying back. When it was known a short time ago that the customary dividend was to be postponed the shares were freely offered—too freely as it has turned out, for many operators have "burnt their fingers" over their little speculation.

The shares of Glaisdale Quarry have been in active demand. This company was introduced a short time since with a capital of 10,000*l.*, in shares of 1*l.* each, of which 8000 were for issue, leaving 2000 for any future contingency, and the whole have been taken—a very satisfactory state of affairs. The demand for the Whinstone is very great, and it is now being sent off as fast as wagons can be filled. The situation of the quarry—connected as it is by a short siding with the Stockton and Darlington branch of the North Eastern Railway—is greatly in its favour for easy transit of produce to all parts. At the present moment all that can be produced is absorbed locally.

The result of the late trial in the Lord Mayor's Court respecting the disputed transaction in 1000 Prince of Wales hares has given much satisfaction upon the market. Our readers may, perhaps, remember that about two months ago we stated that considerable excitement had taken place in the shares in consequence of 1000 having been sold in one lot, or "in a line," to use a market phrase, which considerably puzzled the judge, jury, and counsel engaged in the case. The bargain was, however, disputed by the purchaser—a large dealer in the shares for a rise—and an action for the recovery of the purchase money—1250*l.*—was the consequence. It is satisfactory to find that when speculators for the purpose of raising quotations to a perfectly fictitious point offer fancy prices for large numbers of shares they can be compelled to make good their offers by those who take them at their word. A point of law was reserved by the judge for future argument.

JAMES H. CROFTS.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 27, 1874.

COPPER.	£	s. d.	£	s. d.
Best selected...p. ton	98	0 0–100	0	0
Tough cake and tile.	96	0 0– 98	0	0
Sheathing & sheets...	99	0 0–101	0	0
Bolts	102	0 0–104	0	0
Bottoms	102	0 0–104	0	0
Old	87	0 0– 90	0	0
Australian	95	0 0– 97	0	0
Wire ...per lb.	0	1 1–	—	
Tubes	0	1 2–	0	1 3

BRASS.	per lb.
Sheets	9½d.–10d.
Wire	9½d.–10d.
Tubes	12d.–12½d.
Yellow metal sheathing	8½d.–9d.
Sheets	8½d.–8¾d.

SPELTER.	per ton.			
Foreign on the spot..	24	5 0–24	10	0
,, to arrive ...	24	0 0–24	10	0

ZINC.				
In sheets	30	10 0–31	0	0
QUICKSILVER (p. bot.)	25	0 0–26	0	0

TIN.				
English blocks ...	£100	0 0–	—	
Do., bars (in brls.)	101	0 0–	—	
Do., refined	102	0 0–	—	
Banca	101	10 0–102	0	0
Straits	93	10 0–	—	
Australian	92	10 0– 93	0	0

TIN-PLATES.*	per box.			
IC Charcoal, 1st qua.†	£1	16 0– 1	18	0
IX Do., 1st quality ...	2	0 0– 2	4	0
IC Do., 2d quality ...	1	15 0– 1	16	0
IX Do., 2d quality ...	2	1 0– 2	2	0
IC Coke	1	6 0– 1	9	0
IX Ditto	1	12 0– 1	15	0
Canada plates, p. ton..	18	10 0–19	0	0
Ditto, at works	18	0 0–18	10	0

* At the works, 1s. to 1s. 6d. per ton less. † Add 6s. for each X.

Terne-plates 2s. per box below tin-plates of similar brand.

IRON. per ton.	£	s. d.	£	s. d.
Bars Welsh, in London	9	2 6–	—	
Do., to arrive	9	0 0–	—	
Nail rods	9	10 0–	—	
,, Staffd. in London..	10	5 0–11	0	0
Bars ,, ditto ...	11	0 0–12	0	0
Hoops ,, ditto ...	12	0 0–	—	
Bars ,, at works ...	10	0 0–11	0	0
Hoops ,, ditto ...	11	0 0–12	0	0
Sheets, single, & plates	12	15 0–14	0	0
Pig No. 1, in Wales ...	5	0 0– 6	10	0
Refined metal, ditto ...	7	0 0– 8	0	0
Bars, common, ditto...	8	0 0– 8	5	0
Do., merchant, f.o.b. in Tyne or Tees...	8	10 0–	—	
Do., railway, in Wales..	7	0 0– 7	5	0
Do., Swed. in London.	16	0 0–17	0	0
To arrive	17	5 0–	—	
Pig, No. 1, in Clyde ...	4	7 0– 5	12	6
Do., f.o.b. Tyne or Tees	4	0 0– 4	5	0
Do., Nos. 3, 4, f.o.b., do.	3	10 0– 4	0	0
Railway chairs	5	0 0– 5	5	0
,, spikes	12	10 0–14	0	0
Indian Charcoal Pigs, in London, p. ton ...	8	0 0–10	0	0

STEEL.	per ton.			
Swed., in kegs (rolled)	—	–	—	
Ditto (hammered)	19	0 0–20	0	0
Ditto, in faggots	20	10 0–	—	
English, spring	19	0 0–24	0	0

LEAD.	per ton.			
English Pig, com.	24	0 0–	—	
Ditto, L.B.	24	0 0–	—	
Ditto, W.B.	24	10 0–	—	
Ditto, sheet	24	15 0–25	0	0
Ditto, red lead	25	0 0–	—	
Ditto, white	30	0 0–32	0	0
Ditto, patent shot	26	10 0–26	15	0
Spanish	23	10 0–23	12	6

REMARKS.—Orders have not been quite so plentiful this week, and our markets generally have assumed a quiet appearance. The least promising metal is iron, in which the market exhibits symptoms of decline; prices are easy, and further reductions are not improbable. Comparatively little change has occurred in the quotations for other metals, but, considering the limited amount of fresh business given out, prices have been remarkably steady. This is a good sign, as holders evidently anticipate better times, and the realisation of higher rates.

COPPER.—If peace and plenty do not inaugurate a period of prosperity we know not what will. If supply and demand no longer exercise control over markets we know not what will regulate them. If a satisfactory condition of the copper trade and light stocks will not help prices we are at a loss to conceive what will. But, to the point—the momentous question. Is copper to rise or fall? That remains to be seen hereafter, but, unless the world suddenly comes to an end, we see no reason why the demand for copper should abruptly cease. Unless the copper secreted in the moon should unexpectedly drop down upon us, or a sudden volcanic eruption discharge an inexhaustible quantity at our feet, we look in vain for overwhelming supplies, and unless there should appear another sensational paragraph from the pen of a leading contemporary to shake the confidence of timid buyers, our market will, in all probability, continue favourably to progress, and a further advance be ultimately established.

We leave contending parties to settle their own disputes as best they may, but we will ever be unfettered. Our task lies in a different direction, and at all costs we will, to the best of our ability, without prejudice preserve the right and proper course, and hold the scales with even hand. Were we just now to declare our market to be in a declining state, and without prospect of amendment, stocks heavy, supplies excessive, and little or no consumption, such a description would simply be a fiction, and we should forfeit the character of truthful and faithful chroniclers. But, as circumstances combine to make the position of this metal entirely the reverse of all this, we must not fail to name it that it may be published at home and abroad.

However it may affect those more immediately concerned, it is our duty to endeavour to be a guide to all who may not be well versed in the changes of our market.

There is not much difficulty in discovering a weak and exhausted market, for sellers in their extreme eagerness to realise invariably display timidity and anxiety. Neither is there, on the other hand, much trouble in ascertaining a strong market, for if sellers entertain a high opinion of the future they are firm in adhering to current rates, and it may always be taken as a very significant fact, when there is but little disposition aroused on the part of holders to press sales, that there is not much prospect of prices drooping, and such is the case at the present time.

The fluctuations have been unimportant, and steadiness throughout has been the chief characteristic feature.

The position of copper does not warrant us in looking for cheaper prices, and the market being in a particularly sensitive state renders any delay in the execution of orders likely to be attended with considerable risk.

Indeed, the market is wonderfully strong, and the upward movement would be greatly facilitated by the receipt of light charters, and any further material reduction in stocks would unquestionably produce a still further advance. Do not, however, let us be misunderstood. We are not advocating an extraordinary rise, but merely pointing out what may possibly and not improbably occur.

Smelters have nearly cleared the market of regulus, and they were compelled to give 18*s.* 4½*d.* per unit for the last purchase, being a further advance of 4½*d.* per unit upon last week's sales. The market during the last few days has assumed a quiet appearance, owing to the total absence of speculation, and quotations are a shade easier. The imputations recently made by some anonymous writer in the *Times* against wharfingers, smelters, and others not having been followed up, the public will of course form their own conclusions as to the correctness of those imputations, and we may fairly assume that the information obtained was either too meagre or insufficiently supported to admit of reiteration. It would have been very much better if the writer upon discovering his mistake had immediately withdrawn the erroneous assertions. We sincerely hope, however, that the subject will now drop, and that no further reference may be deemed necessary to what has passed, but that all connected with the trade will unite to work harmoniously and uninterruptedly together. Our expressions in defence of the truth may have been considered too strong, but they were occasioned entirely by the undue severity of the attack, and not dictated by any vindictive feeling.

IRON.—The improvement noted last week in the position of the Pig-Iron Trade in the North of England continues. This is the only description of iron, however, which shows any sign of vitality, and the demand which exists is rather for shipment abroad than for the use of manufacturers at home. As for the finished iron trade, it is hardly possible that it can be in a much more depressed condition than it now is. In the Middlesborough district the support which manufacturers received from the execution of orders for shipment has ceased now that the shipping season is over, and as very few or no fresh orders are booked there is hardly anything doing. This condition of affairs is not usual at the close of the year, more particularly with respect to the rail trade, as the rail-mills are generally very full of work running off bars for spring delivery; but neither for railway material nor for merchant bars is there anything like a normal demand, and the result is that many mills have ceased working, and others have been put on short time, and the prospects of the trade for the coming winter are anything but bright. There is no change of importance to report in prices. The report from the Welsh districts is quite as unsatisfactory as from the North of England. The dulness which has been the characteristic feature for so long is, if possible, intensified, and when this has been said there remains but little more to add. The acceptance on the part of the men of a reduction of 10 per cent. in wages does not appear to have exercised any beneficial effect in inducing the public to give out orders at the slightly easier quotations which the reduction enables the masters to accept. The demand is not sufficiently great, and the state of trade is not sufficiently active to render so comparatively small a reduction an inducement to buyers to come forward; and in this district, as well as in the North, mills are working short time, and in some cases are closed entirely. The Scotch pig-iron makers opened at the beginning of the week with a dull appearance, and the tendency throughout has rather been to slightly lower quotations, but for the last day or two the market has been somewhat steadier, and business has been done up to 84*s.* 3*d.* To-day's report quotes this amount as the price of mixed numbers.

SHIPMENTS.

Week ending Nov. 21, 1873	Tons 13,700
Week ending Nov. 22, 1874	10,324
Increase	3,376
Total decrease since Dec. 25, 1873	151,409

LEAD.—The market for this metal has been firm, and business has been reported in good soft English pig at 24*l.* Spanish is quoted 23*l.* 10*s.*, and 300 tons of rich silver-lead has realised 23*l.* 12*s.* 6*d.* in Newcastle.

SPELTER.—There has been a little more doing in this metal, and some parcels of Silesian have changed hands at about 24*l.* 5*s.* to 24*l.* 15*s.*, according to brand, ex warehouse at out ports.

ZINC.—London rolled has realised 29*l.* 17*s.* 6*d.*

QUICKSILVER.—The sale of this metal continues to be strictly in the hands of one house, which possesses the monopoly of the market, and buyers are compelled to submit to the price demanded or go without. This is not, however, deemed so great a grievance as the difficulty which often exists in obtaining, after repeated application, the required quotation, and buyers not unfrequently find that at the named quotation only a very limited quantity will be sold, and that no more is obtainable at a higher price. It occasionally happens that a small quantity find its way into second hands, and upon the publication of an advance by importers such parcels are purchased in the market a shade under published rates. In this way some few transactions have taken place at 25*l.* for arrival, but these transactions cannot be taken as an index of the price that may hereafter be demanded. For small lots on the spot 26*l.* has been paid. While Spanish affairs continue in their present unsettled state prices will probably be maintained.

TIN.—The market during the week has been quiet, operators preferring to await the result of the Dutch sale, which was announced on the 26th inst.—20,100 slabs of Banca tin were sold at 57¾ fls., and 40 c., equal to about 101*l.* 10*s.* or 102*l.* in London. Tone has, consequently, been imparted to this market, and various transactions have been reported in Straits tin at about 93*l.* for cash on the spot. Also 93*l.* for October and December shipment. Australian, 92*l.* cash and 91*l.* 10*s.* for arrival. English ingots are quoted at 100*l.* At these prices Banca tin cannot be brought into competition with Straits and Australian, in both of which there appears to be room for considerable improvement, as the average difference does not usually exceed 1*l.*

TIN-PLATES.—The market is not quite so firm as it has been, and makers would be glad to book orders, but at present prices there is an indisposition to make concessions sufficient to induce buyers to come forward.

THE IRON TRADE—(Griffiths's Weekly Report).—Friday Evening, Nov. 27: The Glasgow market for Scotch pig-iron has witnessed some slight fluctuations, generally of a downward tendency. The closing price to-day in Glasgow is 84*s.* 9*d.* cash, which shows a loss in g.m.b. iron on the week of 1*s.* 3*d.* per ton; g.m.b. iron closed this day week in Glasgow at 86*s.* On Monday the market opened at 85*s.* 9*d.*, receded to 85*s.* 3*d*, and closed firm, buyers, at that price. On Tuesday there was again a slight reduction; closing price, 84*s.* 9*d.* On Wednesday no noticeable change took place. On Thursday the market underwent no material change; rather a large business was done at 84*s.* 3*d.* to 85*s.*; clo ing sellers, 84*s.* 9*d.*; buyers, 85*s.* To day (Friday) the market opened at 84*s.*, advanced 9*d.*, closing 84*s.* 9*d.* cash. In makers' iron some of the firms have reduced the price of their No. 1, but No. 3 remains very firm. We quote makers' No. 1 iron as follows:—Gartsherrie, 101*s.*; Coltness, 103*s.*; Calder, 103*s.*; Langloan, 101*s.*; Summerlee, 97*s.*; Monkland, 88*s.* 6*d*, f.o.b. Glasgow; Glengarnock, 94*s.* 6*d.*; Eglinton, 87*s.* 6*d.*, f.o.b. Ardrossan; Shotts, 101*s.*, f.o.b. Leith; Kennicl, 91*s.*, f.o.b. Bo'ness. We have very little change to notice in the iron trade this week. The deliveries of finished iron in London are up to the usual average; a good stroke of work is evidently being done in Staffordshire and Shropshire. We have still good enquiries, and in fact orders, for hoops. The Welsh and Middlesborough houses are are not as firm in their price of bars. The boiler plate trade is flat. We have still buyers of sheet iron on this market, but the demand for sheets, on the whole, is not so pressing here as it was a month since. We cannot report any improvement in the demand for rails. The works in Wales and Middlesborough are in want of orders, and there is greater slackness of orders at the rail mills in all parts of England than in any other department of the trade. The tin-plate trade continues to improve, and it is the opinion of numerous well-informed parties here that the iron trade will take a turn for the better at the close of this year, it being admitted on all hands that the stocks of pig iron never were so low not only in this but all other countries. Messrs. Chavasse and Southan have taken the Moxley Works, formerly carried on at Moxley, and known as Mr. Daniel Rose's Works. Sheet iron will be manufactured here, and likewise use iron of the same kind as was formerly made by Mr. Daniel Rose.

Messrs. Pixley and Abell—GOLD: The arrivals during the week comprise 60,000*l.* per Gange, from China, and 10,000*l.* from Alexandria. These amounts have been taken for the Continent, together with 44,000*l.* in bars from the Bank, the demand being sufficiently active to absorb all sums that come to hand: 120,000*l.* in sovereigns were also withdrawn from the Bank, 100,000*l.* going to the Brazils, and 20,000*l.* to Lisbon. The Russia, with 80,000*l.* from New York, and the Khiva, with 629,560*l.* from Australia and Japan, are both due on the 30th inst.—SILVER: Fine bars increased in value since our last circular, and all that could be got ready for shipment by the French steamer of the 21st inst. and by the Peninsular and Oriental steamer leaving to day, was sold at 58¼*d.* per ounce. The amounts to hand during the week make a total of 16,500*l.*, and have been received from New York. The Peninsular and Oriental steamer leaving to-day takes out about 25,000*l.* to Bombay.

Messrs. Vivian, Younger, and Bond—COPPER: At the Swansea Ticketing on Tuesday last, 1032 tons British and foreign ores sold at an average of 17*s.* 5*d.* per unit for an average of 17½ per cent., Cape ores of 31½ per cent. realising 17*s.* 10½*d.* per unit. By private contract 600 tons of regulus at Swansea have been sold to smelters at 18*s.* 3*d.* to 18*s.* 4½*d.* per unit. The general tone of the market during the past week has been otherwise dull, and though nothing has been pressed for sale, and consequently prices are only 10*s.* easier, but few sales have been made to the trade, and the transactions for the week are limited to a few hundred tons of Chili bars at 88*l.* 10*s.* to 89*l.*, part named brands and for arrival. The absence of further Chilian news since the 17th ult. at Valparaiso, has partly contributed to the general want of animation in foreign sorts, and cablegrams are now daily expected with charters for the second half of October and the first half of November. Australian but little doing at 96*l.* 10*s.* for Wallaroo, 95*l.* for Burra, and 92*l.* 10*s.* to 95*l.* 10*s.* for ingots of various brands. English continues in good demand, especially for tough cake and ingot, up to 96*l.* In best selected, second-hand parcels have been offered at from 95*l.* to 96*l.* 10*s.*, but have now been pretty well cleared off, and the rates asked by smelters vary from 97*l.* to 100*l.* Manufactured in moderate request up to 102*l.* for strong sheets.—TIN: At the Dutch sale, which took place yesterday, 20,100 slabs of Banca realised 58·40 guilders, equal to 101*s.* 6*d.* laid down here. For some days previously very little business took place in any description, a few small sales of Straits being reported down to 92*s.* 6*d.*, and of Australian at 92*s.* Since the Dutch sale the market has improved 10*s.* to 20*s.*, closing rather buyers at quotations. English has only been in moderate request at 99*s.*

Messrs. Henry Rogers, Son, and Co.—COPPER: Business in this metal is in a great measure suspended in consequence of the non-arrival of news from the West Coast. The nominal price of Chili bars is 88*l.* 10*s.*, but no very large quantity seems to be offering at this figure. Since our last, four cargoes of regulus have been taken by the smelters at from 18*s.* to 18*s.* 4½*d.* per unit. All the floating cargoes but one have now been sold, and the spot quantity considerably reduced. The consumers are apparently alarmed at the continued diminution of the stocks of copper, but still hold aloft from the market. The manufacturing portion of the trade continues to be well occupied, and prices have been advanced ¼*d.* for yellow metal, and the same for brass wire, &c. The demand for India is checked for the moment by the advance to 100*l.* for sheets, but as both the Bombay and Calcutta markets are better, the Indian demand may revive again directly.—TIN: Has still a drooping tendency, and both Straits and Australian are cheaper; the value of English is maintained, but the demand is but moderate. The Banca sale this week was equal to 102*l.*—SPELTER: This market remains quiet, but sales whenever reported are at full rates. There is a very fair demand for zinc, the deliveries of which, especially Belgian qualities, are much in arrear.

Messrs. James and Shakspeare—COPPER: Undeterred by the insinuations that stocks of this metal had been manipulated to suit speculative purposes. Smelters have again been large purchasers of furnace material, taking during the week about 2500 tons of regulus, at 18*s.* to 18*s.* 4*l.* per unit, chiefly to arrive and at the lowest figure. By these purchases they virtually control the market, as there is but little stuff remaining unsold, either here or on the way to this country. Bars have been quiet since our last, and show scarcely any change in quotations; the sales reported were at full figures, but consisted chiefly of named or picked brands, or else of parcels lying at Swansea, for which there was a special demand. The non-arrival of the charters, due by telegram a few days ago, tends no doubt to prevent business, as operators are anxious to learn the effect produced in Chili by the late advance here; though the response to our highest figures cannot be known until the end of the year. Australian sorts are still neglected, but there have been some large enquiries for Wallaroo cake for delivery over the next six months, which have not yet resulted in business. English descriptions are quiet, but can be bought, though in small quantities only, below the official quotations.—TIN: English is in very small request and purchases can be effected on rather easier terms. Foreign descriptions were almost entirely neglected during the earlier part of the week, and values receded about 1*s.* to 2*s.* per cwt. from the rates ruling on Friday last, but the result of the Dutch auction being more favourable then was generally expected imparted a firmer tone to our markets, and both Straits and Australian are now held for our top prices. At the sale of Banca in Holland, yesterday, 20,100 slabs sold from 57¾ fl. to 58¾ fl., the average being 58 2-5th fl., equal to about 102*s.* per cwt. in warehouse here.

In the MINING SHARE MARKET there has been a moderate enquiry for shares in copper and tin mines, but the actual business transacted has been of small amount. One or two low-priced copper shares, which have been for some time greatly depressed, have been rather more in demand, particularly Devon Great Consols, Hingston Down, Marke Valley, and Parys Mountain, but prices have scarcely been maintained. Among tin mines dealt in have been Wheal Peevor, Carn Brea, Dolcoath, Tincroft, Wheal Grenville, Wheal Uny, West Basset, and Penstruthal. Lead mines have been quiet, and include Roman Gravels, Pennerley, Tankerville, Van Consols, Great Laxey, &c.

The Sale of Banca tin went off well, and at prices equal to 102*l.*; Straits tin is also up to 93*l.*; and, with both this metal and copper improving, it is hoped that more activity will soon be observable in the share market.

Dolcoath shares are quieter at 49½ to 50½. Tincroft, 29½ to 30½; East Lovell, 10 to 11. Cook's Kitchen, 8 to 9; at the meeting the accounts for three months showed sales of tin (60 tons), 3322*l.* 2*s.* 7*d.*; costs to Aug. 29, 3716*l.* 0*s.* 8*d.*, and a loss of 391*l.* 5*s.* 10*d.* The debit balance carried forward is 1196*l.* 1*s.* 2*d.* The report states that the engine-shaft is down 2 fms. under the 302; lode worth 30*l.* per fathom for length of shaft. The 306 west is worth 20*l.* per fathom. The 306 east has gone through a good piece of tin ground for 10 fms. in length, worth on average 50*l.* per fathom; lode in the end worth 25*l.* per fathom. In Dunkin's lode in about four months the ground from the 170 to the 190 will be laid open, and give a large piece of productive tin ground to take away. Court Grange, ¾ to ⅞: the lode in the 16 is worth 12*l.* per fathom. West Frances, 8½ to 2½; at the meeting here the accounts for the three months showed sales of tin, 3517*l.* 15*s.* 6*d.*; costs to September 12, 3381*l.* 1*s.* 1*d.*; balance against shareholders last account, 706*l.* 14*s.* 11*d.*; present debit balance, 569*l.* 0*s.* 6*d.* Baily's shaft is now down 11 fms. below the 132. Smith's shaft will shortly be commenced sinking below the 132, where there is a lode worth 40*l.* per fathom. Bog, ⅛ to ⅜; Cargoll, 1¾ to 2; East Caradon, 1 to 1¼.

Botallack, 47 to 48; at the meeting here the accounts, charging up the costs to Oct. 9, showed a profit of 491*l.* on the quarter, and a debit balance of 1928*l.* Copper ores sold, 1172*l.*; tin, 226*l.* The mine, it is reported, looks better both for copper and tin. Wheal Unity Wood, ½ to ⅝; at the meeting a call of 2*s.* 6*d.* per share was made. The accounts showed a loss of 779*l.* on three months' working, and the report states that the mine never looked so well as at present. Major's engine-shaft is sunk 5 fathoms below the 50, and worth 50*l.* per fathom.

Hingston Down, 1⅜ to 1⅝; at the general meeting the accounts, which had previously been circulated among the shareholders, were passed, and for the next six months the costs are estimated at about 760*l.* per month, and the sampling for the same period about 260 tons of copper ores per month. The agents conclude their report by stating that with the course of ore discovered in the upper levels holding good to the deepest point reached in the mine, and still going down, and the great course of ore now entering upon the 110 going away into a great stretch of whole ground westward, the prospects altogether are of a most encouraging character. Brookwood, 5 to 5½; at the meeting the accounts showed a profit on four months' working of 753*l.*, a balance in hand of 1016*l.*, and a dividend of 4*s.* per share (800*l.*) was declared. The copper ores sold in the four months (569 tons) realised 2694*l.*, West Chiverton, 2 to 2½; some interesting statistics have been published respecting the returns of this mine under the management now summarily dismissed, as many think, for the faults of others. Since 1863—that is, in little more than ten years—the mine sold 41,352 tons of mineral for 545,211*l.*, of which 36,884 tons were lead ore, value 532,618*l.* Out of this large sum 36,211*l.* were paid to the lords as royalty; labour, 245,552*l.*; machinery and plant, 55,000*l.*; merchants, &c., 50,947*l.*; dividends to shareholders, 157,500*l.*: showing that the shareholders received nearly one-third of the gross returns as profit. Devon Great Consols have declined to 2½, 2¾; particulars of the meeting will be found in another column.

South Roman Gravels, ⅝ to ¾; the 20 end east, which it is expected will soon intersect the new lode cut under the boiler-house, is, the agent states, getting into productive ground. The 20 west has a solid branch of lead in the end, worth 20*l.* per fathom, and the agent considers the mine will turn out a great success. Pennerley, 1¼ to 1½; the mine sold this week 80 tons of lead ore, at 15*l.* per ton, which leaves a profit on the month of 250*l.*

Penstruthal Consols, 12*s.* to 14*s.* ex div.; at the meeting, held at the mine, a dividend of 1*s.* per share was declared. The accounts of tin sales and interest from which the dividend was taken shows a balance of 1943*l.* The assets of the company was given at 27,000*l.* The mine is now returning 8 tons of tin per month, with excellent prospects. During the year a steam-engine has been erected, and 32 heads of stamps, with dressing-floors, completed. Gawton Copper, ⅝ to ¾; Great Laxey, 10¾ to 11¼; Ladywell, 2⅜ to 3; Marke Valley, 27*s.* 6*d.* to 30*s.*; Parys Mountain, 6*s.* to 8*s.*; Providence Mines, 4½ to 5; Roman Gravels, 13 to 13½; Rookhope Valley, 5*s.* to 7*s.* 6*d.*; South Caradon, 120 to 130; South Crofty, 9 to 10; South Frances, 15 to 17.

Tankerville, 6⅜ to 7; Van, 21 to 23; Van Consols, 2½ to 2¾; West Basset, 8 to 8½; West Esgair Lle, 2 to 2¼; West Seton, 23 to 25; West Tolgus, 72½ to 75; Wheal Basset, 20 to 22½; Wheal Crebor, ⅜ to 1; Wheal Grenville, 4½ to 5; Wheal Jane, 4 to 4¼; Wheal Kitty (St. Agnes), 5 to 5½. Wheal Peevor, 6¾ to 7¼; the lode in the shaft, we understand, is worth 60*l.* to 70*l.* per fathom. Wheal Uny, 3¼ to 3½. South Condurrow, 4 to 4¼; we understand the mine has been specially inspected this week, and the report is very favourable as to its present condition, and the manner in which it has been worked under the present management.

Birdseye Creek, 2¼ to 2½; Cedar Creek, 1½ to 1¾; Chontales, 9*s.* to 11*s.*; Eberhardt and Aurora, 5 to 5¼; Emma, 1 to 1¼; Flagstaff, 1¾ to 2; Last Chance, 15*s.* to 20*s.*; Panulcillo, ¾ to 1; Richmond, 6⅜ to 7; St. John del Rey, 250 to 260; Sweetland, 2¾ to 3.

The Market for Mine Shares on the Stock Exchange during the week has been favourably influenced by the easier tone of the money market, but more particularly by the continued firmness in the value of metals. Since the announcement of the result of the Dutch sale tin shares have been more enquired for, lead shares have changed hands at advanced quotations, but copper shares generally have been flatter.

American mines have ruled lower; the settlement, which commenced yesterday (Friday), developed a heavy, weak "bull" account," which induced a pressure of sales, and a consequent decline in prices. Added to this, advices have been received that heavy falls of snow have commenced, which it is apprehended may cause a partial, if not a total, suspension of operations at some of the leading mines dealt in upon our market. Hydraulic Mine shares have been rather more in request, especially Birdseye Creek and Cedar Creek; the former show a hardening tendency, while the latter have advanced, and close firm at quotations. Blue Tent are also firm. Sweetland Creek unchanged.

Richmond Consolidated, 6½ to 6⅞; cablegram received, week's run $52,000. Further confirmation has been received relative to the point that the great body of rich ore struck by the winze sunk in the end of the drift run from the 400 ft. level, in the great hoisting shaft, henceforth to be called the "Richmond Shaft," is the main Richmond ledge, or vein. This fact virtually adds the intervening ground between the points to which the great vein has been worked down, and the new point lately struck to the reserves, as no reasonable doubt can be entertained that the ore body exists in full force

for the whole distance. The work of sinking on the advanced portion of the great vein is being continued, though but slowly, in consequence of the need at present of greater power of ventilation. By the latest accounts it appears that at this point also the lode is widening as it goes down. The surveyor of the Eureka Consolidated Company has been allowed to enter the Richmond Mine to take bearings, in order to determine the question whether the lode at its farthest working was in any way encroaching on the boundary line settled between the two companies, the result being that it is now demonstated that at the nearest point to the Eureka boundary the Richmond ledge was 287 feet from it before it took its swing back towards the Richmond Company's main area, up which it is now taking its grand course, clear of all difficulties, legal or otherwise. The season's make of bullion amounts to $1,177,000. The last few weeks work must be considered highly satisfactory, as it is understood that a much higher rate of profit than the yearly average is now being realised. Litharge is now being produced in considerable quantities from the company's separating works at Eureka, and a flux, to operate on the poor ores, hitherto all but useless, is obtained nearly free of cost. The new flue is working most successfully, and is estimated to effect a saving of 40*l.* daily when the three furnaces are at work. The proceedings of the general meeting are reported in another column. Eberhardt and Aurora, 4¾ to 5¼; at the meeting, reported elsewhere, it was resolved to issue debentures to the extent of 10,000*l.* South Aurora, ½ to ⅝. Mineral Hill has produced 35 tons of ore, of an average grade of $35 per ton, during the week ending Nov. 2.

Emma, 1 to 1¼. Flagstaff, 1⅛ to 1⅛; the most unsatisfactory advices continue to be received as to the position of the vendor towards the directors. Last Chance, ¾ to 1; Tecoma, ⅝ to ⅝. Utah, ¼ to ½; the shares of this company are of an almost nominal value now, though from information received it is by no means certain that the ore is of the low value that has been put upon it. New Pacific, ⅜ to ½; the agent reports operations going on as usual, and no change underground in the various ends.

Blue Tent, 5 to 5¼; the superintendent, Colonel Tozer, is rapidly getting the South Yuba claim into shape for vigorous washing. The large blast lately exploded did fine execution, and when washing commences good returns will be made. The Enterprise claim is in readiness when rains begin. Cedar Creek, 1⅝ to 1⅞; we published a telegram last week that water to wash Yankee claim was assured for the remainder of the year. A later telegram announces a clean-up of this claim with a profit of $5000, after paying for much necessary dead work. There is every probability of this company doing well during the coming season, and shares have been in request at advanced prices. Birdseye Creek, 2⅛ to 2⅜; the agent, Mr. Powers, was pushing on with the new tunnel and shaft with all possible speed. The arrangements for the coming season were well in hand. Sweetland Creek, 2¾ to 3; Mr. G. D. McLean writes that he expects to recommence washing some time during the present month. The communication between the two ditches was nearly completed.

Sierra Buttes, 1⅞ to 2⅛; ditto Plumas Eureka, 1¼ to 1¾. The stopes at Sierra Buttes have yielded ore of somewhat lower grade, which accounts for the profit in October being less than usual, but the current month's profits are expected to be up to the usual average. At Plumas Eureka the ledge continues to maintain its great size and productiveness, the ore being of high grade in free gold, exclusive of the sulphurets, which are abundant and very rich; a great mine is being steadily opened up, which promises to be permanent and highly profitable. London and California, ⅝ to ¾; the ledge here has been explored, and found continuous for 100 feet, height and width of it unknown. The ore is of unusually high grade —$50 per ton; the last crushing of 260 tons was crushed by 10 stamps in 13 days, and realised $13,000; another crushing is shortly expected. Independence, 1¼ to 1⅜; the eastern end at the fourth level has been driven through the shoot, and the rich ore above having been worked away by the previous owners, the stopes in this part are in low-grade ore, which reduced the average of last month's crushing; the stopes and end west of the rise continue in good auriferous quartz, and this part of the mine looks most promising; the shaft has been sunk 8 feet, and the sinking promises to be rapid. The object of sinking this shaft is to intersect the middle shoot, which has been the most extensive auriferous shoot in the mine.

Cape Copper, 29½ to 30¼. Rio Tinto, 8 to 9; 150 tons of cement copper are expected at Liverpool, and about 250 tons of pyrites; the progress of the contractors with the railway is so satisfactory that the directors rely upon the completion of the line by Midsummer. New Quebrada, 3½ to 3⅝.

Linares shares have improved to 3½, 4; Fortuna, 4½ to 5; Alamillos, 1½ to 2. Van, 20 to 22½; there is no change to report from the mine. Everything is progressing with the usual regularity. Van Consols, 2¼ to 2½. Bog, ⅛ to ⅜; we understand that the chairman has received a satisfactory number of promises in respect to taking up some preference shares. He intends, therefore, appealing once again to the shareholders, and if the promises are carried out immediate steps will be taken to remove the company out of liquidation. A correspondent sends us a report from a local engineer, and we print same in another column. The late discovery is one of unusual importance, and it behoves the shareholders now to put their shoulders to the wheel and rescue this undoubtedly fine property. West Esgair Lle, 2⅛ to 2⅜; on Wednesday the shareholders confirmed the resolution increasing the capital of the company by 4000*l.* Particulars of the proceedings will be found in another column. The agent's report is of a very satisfactory character, and in the eastern mine especially a good course of ore is being laid open in each level. Pennerley, 1⅜ to 1⅝: in another column we print the agents' report. The mine is a little improved, and there are one or two points of interest to come off very shortly. The ore sold on Wednesday—80 tons —realised 1200*l.*

At Wheal Peevor the shaft is not yet quite through the slide; the western end of the shaft is pretty nearly through it, and the lode is looking well and improving every foot sunk. The agent is very pleased with its appearance, and has every reason to believe the best has not yet been seen; the shaft is worth 60*l.* per fathom. The 48 west 12*l.* per fathom, and the tribute pitches are looking well.

Subjoined are the closing quotations:—

Bog, ⅛ to ⅜; Dolcoath, 50 to 52; East Van, ½ to 1; East Caradon, ⅞ to 1⅛; East Lovell, 10 to 10½; Hingston Down, 1¼ to 1¾; Marke Valley, 1¼ to 1½; Pennerley, 1⅜ to 1⅝; Penstruthal, ½ to ⅝; Parys Mountain, ¼ to ½; Roman Gravels, 13 to 13½; Tincroft, 30½ to 31; Tankerville, 6¾ to 7; Van, 20 to 22; Van Consols, 2¼ to 2½; West Esgair Lle, 2⅛ to 2⅜; West Chiverton, 1¾ to 2¼; Wheal Grenville, 4½ to 5; Almada and Tirito, ⅜ to ⅝; Birdseye Creek, 2⅛ to 2⅜; Cedar Creek, 1⅝ to 1⅞; Cape Copper, 29½ to 30½; Chontales, ¾ to ⅞; Don Pedro, ⅝ to ⅜ dis.; Emma, 1 to 1¼; Eberhardt and Aurora, 4¾ to 5¼; Flagstaff, 1⅛ to 1⅜; Frontino and Bolivia, 7 16ths to 9 16ths; Last Chance, ¾ to 1; Malpaso, ¾ to 1; Malabar, ½ to ¾; New Quebrada, 3½ to 3⅝; Richmond Consolidated, 6½ to 6¾; Rica, 2¼ to 2½; St. John del Rey, 250 to 260; Sweetland Creek, 2½ to 3; Sierra Buttes, 1⅞ to 2⅛; San Pedro, 1½ to 2; Tecoma, 7s. 6d. to 8s. 6d.; South Aurora, ½ to ⅝; Independence, 1¼ to 1¾; London and California, ⅝ to ⅞; Blue Tent, 5 to 5¼; Holcombe Valley, 1 to 1⅛; New Pacific, 7s. 6d. to 10s.; Utas, ¼ to ½.

COLLIERIES AND IRON COMPANIES.—Our market has been quiet, though a fair amount of business has been transacted in Thorp's Gawber, Bilson and Crump, Cardiff and Swansea, Chapel House, Silkstone Fall, Ebbw Vale, Clee Hill, New Sharlstone, Lehigh and Wilkes, and a few others. Offers have been solicited for Wernpistill, Skerne Ironworks, Betts Llantwit, Glyngwillim, Brittania Iron, and Industrial Coal, but we failed to hear of any business been transacted. Nant-y-Glo, quoted 44 to 48, have been dealt in at 45 to a small extent. The annual meeting is called for Dec. 2, but for some reason or other we are informed at the offices that the directors' report will not be circulated previous to the meeting. Offers are being wanted for some of the ordinary shares. Bilson and Crump, 10½ to 11. Richards and Co., 4 to 4½. Newport Abercarn, 4 to 4¼. West Mostyn, 40s. to 45s. Accounts received from the Lehigh and Wilkes, Barre Coal Company show that 280,800 tons of coal were sold in October, being at the rate of 2,370,000 tons per annum, and the accounts of the Central Railroad Company of New Jersey, which guarantees the principal and interest of the coal company's bonds, show $1,030,000 ascertained gross earnings for September, and $1,100,000 estimated gross earnings for October, or at the rate of over $13,000,000 per annum. It is stated in reference to the winding-up order obtained against the Llangennich Collieries Company, that leave has been granted by the Court to discharge the order within a week, on the company representing that they will soon be in funds to meet the claims of the petitioners. Bilboa Iron, 43 to 44. John Brown and Co., 81¼ to 81¾. Charlton Iron, 18½ to 19½. West Cumberland Iron, 14 to 15. Chillington Iron, 5¾ to 6¼. John Bagnall, 7 to 7½. Sheepbridge Iron, 84 to 84½. Silkstone Fall, 1½ to 2. Silkstone and Dodworth, 21 to 21½. Skerne Iron quoted nominally 12 to 10 dis., nothing doing. Original Hatlepool, 8½ to 9. Merry and Palmer's Shipbuilding, 18½ to 19½. In addition to the works that are idle in the North, the North Yorkshire Ironworks, South Stockton, and Messrs. Fox, Head, and Co.'s Works, Middlesborough, are stopped. Large numbers of men must be thrown out of employment, whom it is feared laid aside but little provision during the days of prosperity, and a very dull Christmas is anticipated by many. Along the proposed route of the new railway to the Brotton district from Glaisdale, several pits have been sunk on the ironstone by way of trial, with good results. Glaisdale Whinstone Quarry, 21s. to 23s. A prospectus has been issued of the Burgullow Hematite Iron Ore Company, formed to work a property near Par, Cornwall, in 12,500 shares of 2*l.* each. It is stated that the ore can be raised for 2s. 6d. per ton, and be delivered in South Wales at a cost of 9s. 6d., the selling price being about 18s. per ton. An output of 200 tons per day can readily be obtained, but assuming only 100 tons to be raised at a profit of only 6s. 6d. per ton, this would give a return of 10,140*l.* per annum, equal to 40 per cent. We are informed the demand for hematite ore is enormous, and constantly increasing. Gigantic fortunes have been and are still being realised. The directors of John Brown and Co. Limited), Sheffield, have decided to pay an interim dividend at the rate of 7½ per cent. per annum on Dec. 22.

At Swansea Ticketing, on Tuesday, 1032 tons of copper ore were sold, realising 15,711*l.* 4s. 6d. The particulars of the sale were—Average standard for 9 per cent. produce, 108*l.* 9s. 6d.; average produce 17½; average price per ton, 15*l.* 4s. 5d.; quantity of fine copper, 180 tons 12 cwts. The following are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Nov. 3	1472	£104 5 0	19⅞	£16 9 7	16s. 6d	£82 10 0
„ 24	1032	108 9 6	17½	15 4 5	17 4	86 13 4

Compared with the last sale, the advance has been in the standard 4*l.* 4s. 6d., and in the price per ton of ore about 15s. On Dec. 8 there will be offered for sale 1432 tons, from the Cape, Knockmahon, Berehaven, Var, Bampfylde, Telhadella, and elsewhere.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, of Liverpool, we learn that the quantity of coal exported in Oct. was 1,274,669 tons, against 1,044,384 tons in the corresponding month of 1873, showing an increase of 230,285 tons. The particulars are—From the Northern Ports, 552,434 tons; Yorkshire. 99,917 tons; London, 8918 tons; Liverpool, 67,530 tons; Severn Ports, 406,209 tons; and Scotch Ports, 139,633 tons. The increase was—Northern Ports, 30,782 tons; Yorkshire, 37,710 tons; London, 2660 tons; Liverpool, 10,794 tons; Severn Ports, 82,329 tons; Scotch Ports, 66,010 tons. Total exports, Jan. to Oct. inclusive, 10,775,887 tons; increase 1,104,131 tons.

COMMERCIAL ENTERPRISE IN ENGLAND.—In addiion to the enormous amount of capital which private firms have invested in commerce and manufactures during the last few years, there has also been an alacrity displayed in the formation of public companies which may fairly be characterised as marvellous. From a return which has just been issued at the request of Sir Charles Adderley, we learn that in 1872 there were 1098 joint-stock companies registered, with a proposed nominal capital of 133,041,395*l.*, while in 1873 the number registered was 1224 more, with a nominal capital of 152,056,545*l.* In the same period there were also 28 companies registered without nominal capital, but of these 25 were limited by guarantee. Some of the schemes, as may be supposed, appear to have a good deal of the bubble element about them: but a vast majority of the others are, undoubtedly, based on sound calculations, and cannot fail to add to the general well-being of the community if successfully carried out. Man's ingenuity, prolific though it is, seems to have been pretty well taxed in some instances before a suitabele undertaking could be devised. One of the principal channels for the outlay of capital is to be found in mining operations, which is, as amply shown by the return, are to be carried on in every land, and to extend to almost every known product beneath the surface of the globe. In many cases it is the coal districts of our own country that are to be still further developed, and in others the sinker and the hewer have to trace "black diamonds" in the valleys of Russia, Sweden, the "Republic of France," and far off New Zealand. Gold has to be sought in the South African Republic, as well as in the United States, California, and Brazil. A venture for silver and gold has to be tried in Australia; Spain has to be ransacked for zinc and copper; the Nevada mountains, as also the great mountain chains of South America, are expected to yield their share of silver. Iron has been hauled from the hills of Prussia and Canada; and, nearer home, we have Montgomery, Antrim, the Isle of Man, and Islay, as fields for copper, lead, and the less costly ores. In Ottawa, by its expected yield of plumbago, we are to have a rival to Borrowdale; but in addition to all this, there is to be a search for barytes in Cumberland. Galicia has to be ransacked for sulphur, and the islands of the Caribbean Sea are to be visited for phosphate of alumina. But extensive as the mineral trade is, it does not exhaust a hundredth part of the inventive faculty possessed by these intending money makers.

CHEMICALS AND MINERALS—(Messrs. J. Berger Spence and Co., Manchester, Nov. 21).—Soda: Cream caustic, 60 per cent., 14*l.*; white, 15*l.*; soda ash, 2¼d. to 2⅝d.; soda crystals, 5*l.* 10s.; bi-carbonate, 15*l.*; salt cake, 3*l.* 5s.; Glauber salts, 2*l.* 17s. 6d. to 3*l.*—Bleaching Powder: At 9*l.* to 9*l.* 10s. —Alum: 8*l.* for loose lump; ground, 9*l.*—Nitrate of Soda: At 13s. to 13s. 6d. —Ammonia: Sulphate, white and grey, 19*l.* to 19*l.* 10s.; carbonate, 7½d.; muriate, 30*l.* to 35*l.*; sal ammoniac, 1sts, 45s.; 2nds, 44s.—Potash: Muriates, 80 per cent., at 6*l.* 10s. to 6*l.* 12s. 6d., f.o.b.; Prussiate, red, 2s. 6d.; yellow, 15d.; chlorate, 10½d. to 11d.; bi-chrome, 6½d.—Iron Salts: Green and rusty copperas, 60s. to 65s. loose; in casks or barrels, 65s.—Copper Salts: Sulphate of copper, 27*l.* 10s.—Litharge: Best flake, 24*l.* 10s.—Sugar of Lead: Brown, 28*l.* 10s.; ditto, white, 44*l.* 10s. Saltpetre: Foreign, 22s. to 22s. 6d.; refined, 28s. to 28s. 6d.—Acid: Tartaric, English, at 1s 7¾d.; foreign, 1s. 7¼d.; oxalic, 7d.; sulphuric, 3*l.* 10s. to 3*l.* 15s.; carbolic, No. 1, 11d. to 1s.; picric acid, 1s. 11d. per lb.—Arsenic: 11*l.*—Magnesia: Epsom salts, 4*l.* 2s. 6d. to 4*l.* 5s.; refined, 4*l.* 10s.—Benzole: 30 per cent., —; 50 per cent, —; 90 per cent. —.—Wood Pulp: Labro moist, 5*l.* 10s. per ton at outport.—Brimstone: Best thirds, 7*l.* 7s. 6d.—Phosphate of Alumina, 3*l.* to 3*l.* 10s. per ton.—Pyrites: Spanish cupreous, 8½d.; non-cupreous, 9d to 9½d.—China-clay: 18s. f.o.b Cornwall; best quality, 28s.—Phosphates: High strength, 80 to 85 per cent., 1s. 4d. to 1s. 5d. per unit; Estramadura, 1s. 3d.; ordinary, 80 per cent., 1s.; precipitated phosphate of lime, 70 per cent., 5*l.* 5s.; super-phosphates, 80 per cent., soluble, 3s. 6d. per unit; 25 to 26 per cent., 3*l.* 10s.—Manganese: Ores, 120s. for 70 per cent.—Iron Ore: Hematite, 15s. to 22s. 6d.; puddling, 24s. to 27s.; colitic, 8s. to 10s.

Mr. J. W. Vickers, of No. 2, Cowper's-court, Cornhill, announces that he has removed his advertising offices to more eligible premises, and that his address is now No. 5, Nicholas lane, Lombard-street, E.C.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Conference of the National Miners' Association; Board of Examiners for Mining Certificates (E. F. Smith); What is Electricity? (R. J. Crickmer); Patent Law—Specifications (W. P. Thompson); Mining in New South Wales (R. Adams); Copper Mining in South Australia; Russia Copper Company; Tin Miners, and Tin Smelters; Copper Coke Oven; North Wales Quarrymen's Strike: A Cornish Man, Cornish Miners, and Capt. Teague (R. Knapp); Mining Enterprise; West Tolgus; Roman Gravels Mine, and Capt. Waters (R. Tredinnick); South Condurrow Mine (J. Vivian, H. Waddington, E. J. Bartlett, W. Leach).—Australian Mine Reports—Percussive Rock Boring Machinery, and the Darlington Borer (*illustrated*)—Foreign Mining and Metallurgy—Patent Matters, &c.—Meetings of the Imperial Brazilian Collieries, Eberhardt and Aurora, Fuller's Reef, Battle Mountain, Devon Great Consols, West Esgair Lle, Hingston Down, Penstruthal, and Malabar Gold Washing Companies.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 19	Great Darren	12	£19 15 0	Panther Lead Company.
	Rhoswyddol	20	13 19 0	Nevill, Druce, and Co.
20	Minera	60	15 2 6	Panther Lead Company.
	ditto	18	14 18 0	ditto
	ditto	44	15 7 6	Walker, Parker, & Co.
	ditto	34	15 6 0	ditto
	ditto	10	15 5 0	Panther Lead Company.
21	Willoughby	12	14 19 0	Nevill, Druce, and Co.
23	Lisburne—Glogfawr.	56	15 17 6	Sheldon, Bush, and Co.
	„ —Frongoch	70	14 15 0	Nevill, Druce, and Co.
	„ —Graigoch.	50	13 15 0	Panther Lead Company.
	Bog	60	15 5 0	Walker, Parker, and Co.
	Pennerley	80	15 0 0	ditto
	Dyliffe	60	15 10 0	ditto
26	West Tankerville	25	15 6 6	ditto
	Islay	10	15 10 0	Sheldon, Bush, and Co.
27	Rookhope	20	13 13 0	Walker, Parker, and Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 20	Minera	57	£ 3 13 6	Vivian and Sons.
	ditto	32	3 13 6	ditto
	ditto	33	3 0 0	Tindale Company.
	ditto	20	2 10 6	Villiers Company.
	ditto	20	2 8 6	ditto
25	Bog	20	3 15 0	ditto
26	West Tankerville	40	3 13 6	Vivian and Sons.

BLACK TIN.

Date.	Mines.	Tons	c.	q.	lb.	Price per ton.	Amount.	Purchasers.
Nov. 18	Pedn an drea	15	11	1	15	£58 2 6	£ 904 19 2	Redruth.
19	Penhalls	10	18	0	20	—	622 19 10	Daubuz.
	Wheal Uny	15	3	0	17	55 13 4	843 15 5	Redruth.
25	Blue Hills	5	4	0	12	—	286 8 4	Daubuz.

COPPER ORES.

Sampled November 4, and sold at Swansea, November 24.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cape Ore	74	31⅝	£27 18 6	Var Ore	105	17½	£15 7 6
ditto	74	31¾	28 0 6	St. Josephs	10	21½	18 16 6
ditto	74	31¾	28 0 0	ditto	6	19⅞	17 4 6
ditto	73	31¾	28 6 6	ditto	3	40¼	36 0 6
ditto	35	31¾	28 6 6	Copper Slud.	8	25	21 3 0
Union Ore	145	4½	3 1 6	Copper Ore	6	12¾	11 0 0
ditto	88	10⅝	8 9 0	Concordia	5	23½	20 8 0
Berehaven	102	8	6 16 6	White Metal	5	24⅜	16 5 0
ditto	93	8	6 18 0	Copper Stuff	3	52¾	44 9 6
Precipitate	61	15¼	11 2 6	Sweepings	2	6	4 12 0
ditto	60	15¼	11 0 0				

TOTAL PRODUCE.

Cape Ore	330	£9271	8 0	Copper Sludge	8	69	4 0
Union Ore	233	1189	9 6	Copper Ore	6	66	0 0
Berehaven	195	1337	17 0	Concordia Ore	5	100	15 0
Precipitate	121	1338	12 6	White Metal	5	81	5 0
Var Ore	105	1614	7 6	Copper Stuff	3	133	8 6
St. Josephsberg	19	399	13 6	Sweepings	2	9	4 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Copper Miners' Company	162	£ 2,817 9 0
P. Grenfell and Sons	5	81 5 0
Nevill, Druce, and Co.	77	1,098 10 6
Vivian and Sons	134	2,732 0 0
Williams, Foster, and Co.	304	3,853 1 0
Mason and Elkington	74	2,066 9 0
Capper Pass and Son	276	3,062 10 0
Total	1032	£15,711 4 6

Copper Ores for sale on Dec. 8.—Cape Ore 74, 74, 77, 54, 16, 53, 52, 23, 61, 61, 59, 58—Knockmahon 141, 126, 89—Berehaven 92, 81—Var Ore 105—Bampfylde 37, 31—Burrawang Ore 29—Telhadella Ore 6, 17—Copper Regulus 11—Copper Ore 5.—Total, 1432 tons.

TOTALS AND AVERAGES

	21 cwts.	Produce.	Price.	Per unit.	Standard.
Whole sale	1032	17⅛	£15 4 5	17s. 4d.	£108 9 6

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

MINERS' WAGES.—Can any correspondent inform me the title, price, &c., of a work by Walter Rowley, Secretary of the West Yorkshire Miners' Union, giving a table of advances of miners' wages?—TRADE.

MELINDUR VALLEY.—It should be Tinpwll, &c., instead of Cwm Shop. They are adjoining properties, hence the error in my remarks on the Melindur Valley.—S.

DOUBTFUL MINERALS.—"T. A. R." (Liverpool).—In accordance with your request, we have read your letter on this subject in last week's *Chemical News*, and find it interesting and amusing, but with the appearance of having been written, to use the language of "T. A. R.," after an over free use of the archimedean. It may be admitted that "some of the present names of minerals are simply silly," and yet it does not follow that either Maskelyne or Dana should be jeered for the nomenclature they propose. Upon the whole, we prefer Dana, because we believe his nomenclature more likely to be generally adopted. In chemistry the very general use of the metric weights and measures, and the close similarity of the nomenclature in the principal European languages, has already been productive of great advantage, and it would be a matter for congratulation if similar uniformity could be secured in mineralogy. We admire "T. A. R." for saying—"Being the nature of 'T. A. R.' to stick to a subject. . . . I retain my antiseptic initials, because I tremble at the very thought of their eminences the cardinals of chemistry and their sovereignty to atomise," and congratulate him that pitch and tar are not, among scientific men, considered as identical; otherwise his company might be objectionable to his best friends. "T. A. R." should remember that the French, Germans, Italians, Spaniards, Russians, &c., could all adopt the names chalcopyrite, chalcocite, &c., without offending the popular prejudices of their uneducated fellow countrymen, whilst to hope for the adoption of the purely English terms would be as futile as to secure the common use in England and America of Kupferglanz, sulfure de cuivre, &c., for copper glance and copper pyrites.

MR. ENNOR'S LETTERS.—Does any reader know anything about the late Mr. N. Ennor's promised book—whether it is published or about to be published; and, if not, why not reprint his letters in the *Mining Journal* (which have appeared from time to time) in a small volume, as they would be beneficial to the mining community?—E. S.

THE SHROPSHIRE LEAD MINES.—The last sentence in my letter, in the Supplement to last week's Journal, should read—"In case the suggestion that other than Cornish mines should (have an association should) be considered to have practical value, I should be happy to try to carry it out." The words between the parentheses were omitted.—R. J. MORE: *Linley, Bishop's Castle, Nov. 26.*

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

SCALE FOR ADVERTISEMENTS.—Our charge for general advertisements is.—for six lines and under, 4s.; per line afterwards, 8d. Average, 12 words per line.

Received,—"T. W. G." (Tavistock)—"M."—"J. D."—"W. J. J." (Italy): Next week—"Amenuensis"—"M. C." (Dulwich)—The publication of the letter from "Medicus" would cause a correspondence that we should not care to create, and certainly could not find space to publish—"Shareholder" (South Condurrow)—"E. J."—"Constant Reader"—"A Novice" should require an exchange of references—"C. G. S."—"W. W."—"J. C." (Bridgend)—"A Large Shareholder" (Richmond Consolidated): Next week.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, NOVEMBER 28, 1874.

THE MINERAL RESOURCES OF THE UNITED KINGDOM.

Notwithstanding the constant complaints that were heard during 1873 of the great depression existing in connection with almost every department of the mineral and metallurgical industries, the official returns, which will be issued next week, and for an early copy of which we are indebted to Mr. ROBERT HUNT, F.R.S., the Keeper of Mining Records, show that as compared with the preceding year there was an increase in the aggregate value of metals produced and minerals raised to the extent of considerably more than 500,000*l.*, and that the decline was not serious with regard to any particular metal. The total value of the metals produced and of the coal and other minerals raised during 1873, in the United Kingdom, was 70,722,992*l.*, the increase being due entirely to the increase in the get of coals, which represented an increase of 1,300,000*l.* in value. It is gratifying to find that the percentage of increase in the production is less than in the preceding year, and that whilst the rise in 1872 was from 117 350,000 tons to 123,500,000 tons, it was, in 1873, but from 123,500,000 tons to 127,000,000 tons, showing in round numbers an increase of 6,000,000 tons in 1872, and of only 3,500,000 tons in 1873. We subjoin, as usual, the general summary for the last two years, in order that the movement of the several products may be compared:—

MINERALS.	Raised in 1872. Tons.	Value.	Raised in 1873. Tons.	Value.
Coal	123,497,316	£46,311,143	127,016,747	£47,631,280
Iron ore	16,584,857	7,774,874	15,577,490	7,573,676
Copper ore	91,983	443,738	80,188½	342,708
Tin ore	14,266	1,246,135	14,885	1,056,835
Lead ore	83,938	1,146,165	73,500½	1,131,907
Zinc ore	18,543	73,951	15,969	61,166
Iron pyrites	65,916	39,470	58 924	35,483
Arsenic	5,172	17,964	5,448¼	22,854
Bismuth	2	—	1¼	68
Cobalt	1	20	6 cwts.	12
Manganese	7,773	38,865	8,671¼	57,766
Ochre, umber, &c.	3,327	8,327	6,368½	5,410
Wolfram	88	993	50	526
Fluor spar	81	40	—	—
Chloride of barium	65	130	—	—
Barytes	9,093	7,078	10,269½	7,993
Clays—fine and fire, and shale (estimated)	1,200,000	450,000	1,785,000	656,300
Coprolites	35,000	50,000	—	—
Salt	1,309,498	654,748	1,785,000	892,500
Earthy minerals, various (estimated)		650,000	—	3,000
Total value of minerals produced		£58,913,541		£59,479,486

There are several features in the new return which would appear to require some little explanation; the number of enumerated minerals has not been increased, yet the estimate for the unenumerated earthy minerals has been reduced from 650,000*l.* to 3000*l.*, which naturally raises the question whether it should not be 300,000*l.*; if so, the correction should be made before the return is issued to the public; it is curious that the tonnage of clays and salt should be identical, though, of course, both may be correct; coprolites have disappeared from the present return, although it can scarcely be supposed that their production has ceased; and it would be interesting to know whether there has been no fluor-spar or chloride of barium produced, or whether it is merely an absence of returns. It is not improbable that attention to these points would show that the real increase has been greater than the return indicates. The variation in the yield of the other ores requires no special comment.

METALS OBTAINED FROM THE ORES ENUMERATED.

	1872—Tons.	Value.	1873...Tons.	Value.
Iron, pig	6,741,929	£18,540,304	6,566,451	£18,057,739
Tin	9,560	1,459,990	9,972	1,329,766
Copper	5,703	583,232	5,240	502,822
Lead	60,455	1,209,114	54,235	1,263,375
Zinc	5,191	118,076	4,471	120,099
Silver Ozs.	628,920	157,230	537,707	131,077
Other metals (estimated)	—	2,500	—	5,000
Total value of metals		£22,070,447		£21,409,878

ABSOLUTE TOTAL VALUE of the METALS and COAL, with other MINERALS, which are not smelted (except Building Stones, Lime, Slates, and Common Clays), produced in the United Kingdom:—

	1872.	1873.
Value of the metals produced	£22,070,447	£21,409,878
Value of the coal	46,311,143	47,629,787
Value of other minerals	1,811,826	1,681,834
Total value	£70,193,416	£70,722,992

As Mr. Hunt has only been enabled to produce these returns by the liberal assistance of our colliery owners, mine proprietors, agents, and others, he takes the opportunity to express his thanks to them. He is no less indebted to those Inspectors of collieries and metalliferous mines who have, in the most friendly manner, assisted his enquiries to the limits of the restrictions, as to coal returns especially, under which they labour. To these, and to the secretaries and managers of our railways and canals, from whom he has received the most courteous attention and information, which was prepared for his use by the expenditure of much valuable time, he also tenders his thanks, as a small acknowledgment of the liberal aid they have given to the objects of the Mining Record Office.

The value of all statistics being determined by their accuracy, Mr. Hunt judiciously states the sources whence his information is derived, and from the particulars which he gives there can be no doubt that he has used his utmost efforts to make the returns reliable. The returns relating to the metalliferous mines made to the Inspector for Cornwall, Devonshire, and Somersetshire have been deposited by the Home Secretary in the Mining Record Office. These have, of course, been used; but as only the ore raised is required by the Act, many of the mines have given this alone. Therefore, the produce for metal, and the value, had still to be ascertained. This has been done by obtaining the returns made to the Stannaries Court and to the Duchy of Cornwall, and by carefully examining the Ticketing Papers of the copper ore sales in Cornwall and at Swansea. The Mining Record Office has obtained, in addition, returns from a large number of the mines of Cornwall and Devonshire, and from tin streams and open workings, which do not come under the operation of the Metalliferous Mines Regulation Act, 1872. The returns of production from all the mines in other parts of the United Kingdom have been obtained, as they have always hitherto been, by Mr. Hunt's direct application for them.

Equal care was taken in the compilation of the colliery statistics. To the largest number of the coalowners of the United Kingdom a circular was sent, soliciting a return of the coal raised from their collieries in 1873, and other information. Two-thirds of the circulars issued were promptly returned, with the questions most fully answered. Several Coal Mining Associations furnished Mr. Hunt, in confidence, with exact information; and from the overseers of several parishes he has received similar assistance. In addition, the production of large districts, collected with great care, was placed at his disposal. The information thus obtained has enabled him to compute, with accuracy, the production of collieries amounting to more than 120,000,000 tons. All the great coal-carrying railways of the United Kingdom, and several of the canals, have furnished the most detailed returns of the coal carried from each coal field and its distribution, frequently giving, in confidence, the collieries from which it was obtained. All the shipments of coal, both to foreign parts and coastwise, are furnished by the order of the House of Commons, and all the collieries sending coal to within the London district are given in the City of London returns. Nearly all the iron-masters have furnished him with the quantities of coal used in their works from their own collieries, or purchased from others. From the information thus obtained he has been enabled to compute that about 7,000,000 tons of coal were produced beyond the quantity named above. But he desires this to be clearly understood to be *an estimate*, although he is satisfied a fairly exact one. As already stated, the owners of blast-furnaces, of mills and forges, and of tin-plate works, have responded most freely to the application made from the Mining Record Office; and to the smelters of tin copper, lead, and zinc, and to the proprietors of metal precipitating works, he is under considerable obligations for much information. From the liberal way in which the proprietors of clay works, barytes manufacturers, and others, have supplied returns, he is enabled to gave additional matter in the present return. Mr. Hunt has carefully verified his results by a thoughtful examination of the distribution of coal, so that full confidence may be placed in the figures.

By way of introduction to the return, Mr. Hunt makes a reference to the Mining Record Office, which is worthy of the attention alike of miners and capitalists. He remarks that considerable loss of capital has frequently resulted from attempts to mine in localities where a little knowledge of what had been previously done would have shown there was but small prospect of success. Through ignorance of the existence and exact extent of old and abandoned mine-workings, great danger to the miner is frequently incurred, and human life has been often sacrificed. The great object in the preservation of the plans and sections of mines and collieries is the prevention of such loss of property and sacrifice of life. A large collection of these records of our subterranean operations are deposited, and important statistical details showing the real value of all our mines are kept, in that office, under the superintendence of the Keeper of the Mining Records. They are made available for the instruction of students, for the use of the Geological Survey, and they may be consulted by any of the public who are interested in the working of the mineral productions of the United Kingdom. In future Journals the statistics will be more fully referred to, as well as details concerning several minerals, &c., embraced in the return.

COAL IN INDIA.

A statement which has obtained currency apparently with the official imprimatur of the noble marquis who now presides over the destinies of British India, to the effect that discoveries of native coal have been made on an extensive scale in that vast dependency of the English Crown, must be regarded with extreme interest by all who have business relations with our eastern territories. The gradual growth of railways in India has led to the exportation to our eastern territories of an amount of English coal which can ill be spared from the home markets, while this coal costs so much when delivered at (say) Bombay that its use leaves comparatively little profit to the consumer. If India is to achieve any decided material progress her coal resources must clearly be turned to more account than they have been hitherto, and if the Marquis of SALISBURY can inaugurate a policy which will endow India with cheap and reasonably good supplies of native coal he will deserve to be ranked among India's greatest benefactors. Cheap coal would encourage steam navigation upon some of the rivers of India, and would also assist the development of new railways. The success of an Indian railway may be said to be almost entirely dependent upon its proximity to a native coal field. The East Indian Railway uses native coal upon a considerable scale, and is enabled in consequence to give its stockholders a small supplementary dividend in addition to the comfortable 5 per cent. per annum guaranteed by Her MAJESTY'S Secretary of State for India in Council. The Great Indian Peninsula Railway and the Bombay, Baroda, and Central India Railway import considerable quantities of English coal—at any rate, sufficient quantities to leave their mark upon the half-yearly balance-sheets of both undertakings—and the result is that they are not remunerative concerns, and could not hold up their heads at all in the money market unless they were enabled to shield themselves behind a guarantee, which we have already described—and we think justly described—as "comfortable."

It is the loss on the guarantee account occasioned by such undertakings as the Bombay, Baroda, and Central India and the Great Indian Peninsula which has caused successive Secretaries of State for India to pause long and anxiously before they have sanctioned the commencement of oft-discussed and much-required State lines. The consequence is that, although we have acquired by means of the railways which we have developed upon the soil of British India a tolerably good strategic hold upon the Peninsula of Hindostan, inasmuch as we have established railway communication between Bombay, Madras, and Calcutta, while we have carried the iron horse as far north as the Punjaub, we have failed at present to give an industrial impetus to India—such an impetus, that is, as would result from a vigorous working of Indian coal, and a steady construction of local railways. We have no right to hold India as a vast parade ground upon which to manœuvre a comparative handful of costly European soldiers and a crowd of not altogether reliable native troops. The only ground upon which our occupation of India can upon any pretext be justified is that our rule is more beneficent, both morally and materially, than that of the feeble Asiatic potentates whose thrones we have occupied, and whose territories we have absorbed. It is not only the establishment of more railways and more lines of steamships which would be assisted by the energetic and successful working of the native coal of India, but such a working would encourage the development and growth of the native industries of India, and possibly, also, promote in many ways the comfort of the few thousands of our English fellow-subjects whose lot it is to live and labour in the national interest in India. In every way, indeed, the utilisation of the coal of India would be an immense boon to that vast and interesting portion of the British empire whether we regard it from a political or a commercial point of view. It should be the glory of England to leave India in every respect better than she found it, and to do this she must neglect nothing calculated to turn the resources of India to the fullest possible account.

COAL-CUTTING MACHINERY.—An experimental trial was made last week at the Alexandra Foundry, Leeds, with the machine invented by Mr. J. Rothery, of the Waterloo Main Colliery, and to which reference has several times been made in the *Mining Journal*. The test was made upon a large block of coal sent there for the purpose. As is the case with all new inventions, Mr. Rothery has had some difficulty in correcting trifling errors in detail, but his three or four years' exertions appear to be now crowned with success; in the trial in question the cutting properties of the machine were in every way satisfactory; in fact, it appears to cut a block of coal with the same facility as a circular saw would cut a block of wood. The machine is made to do all the holing and vertical cutting required in straight work as well as holing in any long work or modified system. After the experiment some slight alteration to the frame of the machine and the method of propelling it was suggested by Mr. Easton, the engineer of the firm, so that it will not be practically used in the pit quite so soon as was anticipated.

COAL AND IRON IN THE UNITED STATES.—The Boston and Lowell Railroad Company is steel-railing its line, and proposes to lay down steel rails throughout upon it. The anthracite coal movement of Pennsylvania to Oct. 24 this year amounted to 14,794,698 tons, against 15,890,700 tons in the corresponding period of 1873, showing a decrease of 1,197,102 tons this year. The bituminous coal movement of Pennsylvania to Oct. 24 this year was 2,745,559 tons, against 2,712,438 tons in the corresponding period of 1873. The aggregate coal movement of Pennsylvania to Oct. 24 this year thus presented a decrease of 1,062,881 tons. The coal and coke tonnage of the Pennsylvania Railroad to Oct. 24 this year was 2,604,014 tons. The coal production of the Schuylkill district has been especially large of late. The American coal markets appear to be fairly active, there being large supplies on hand. The last public sale of Scranton coal at New York showed an average advance in prices of 18 cents per ton. A Missouri coal company has been organised.

MINERAL WEALTH OF BRITISH COLUMBIA.—In the year ending June 30 the exports from British Columbia were of the value of $2,061,743, the gold dust and bars exceeding a million, and very nearly a million consisting of other products, chiefly wool, furs, coal, timber, and fish. The gold exports in the three months ending Sept. 30, amounted to $407,734; and in September alone, $190,000; and these statements are exclusive of gold shipped in private hands. A nugget weighing over 46 ozs., and worth upwards of $700, was recently taken out of Dease Creek; it is stated that this is the largest nugget that has been found in British Columbia. The north-east end of Vancouver's Island is thought to be rich in minerals, as well as in cedar, fir, and white pine, as Mr J. Coon has ascended Nimpkish river 8 miles to a lake 15 miles in length, crossed the lake, and ascended Camascena river, finding gold diggings that will pay $3 a day to the hand. On the lake a coal seam was seen, and copper and iron were met with everywhere.

IRON TRADE IN INDIA.—A wealthy firm in Calcutta, resolved to be among the first in attempting the revival of the Indian iron trade, will shortly open new works in the Beerbhoom district, near the Synthea station of the East India Railway.

THE DIAMOND DRILL—THREE FATHOMS PER DAY.—As much interest is now being taken by British miners in the question of the relative merits of prospecting by the diamond drill as against other methods, the following work which has been completed at Böhmisches Brod, in Austria, by the diamond drill will be read with interest. The performance is a most extraordinary one, and is, so far as is known, entirely beyond anything that has been done by any other method. The Böhmische Brod borehole has, with the diamond drill, been completed to the depth of over 2000 ft. in one week under four months, including all stoppages. In reporting upon the work, Mr. Thomas J. Bewick, C.E. and M.E., writes that the actual boring was commenced on July 15 last, and on Nov. 8 the depth was 1931 Vienna feet, equal so 2001·4 English feet. At commencement bored 35 ft., when stopped by fall of ground; 13 more, equal to 48; lined with 5-in. tubes, and then bored up to 96 feet with 4-inch crown. Lost water by a cleft at 73 ft. Bored to 180 ft. with 4-in. crown. Again lost water from tubes not being close to the bottom. Withdrew 96 ft. of tubes, and widened the hole to 180 ft., with 5-in. crown. Lined with 5-inch tubes to that depth, and continued with 3-inch crown to bottom. No more tubes required after 180 ft. Usual recent rate of boring 30 to 40 feet per day of 24 hours (two shifts of 12 hours each). Boring is in New Red Sandstone formation. Conglomerate occurred from 520 to 580 ft., 680 to 850 ft., and 1200 to 1510 ft., equal to 540 ft. in all. The pebbles were firm, with but few loose stones. The conglomerate consists of porpryry, Silurian shales, granite, and quartz. The rest of the strata is the usual sandstones, shales, and marls in the New Red Sandstone formation.

BLASTING WHINSTONE WITH DYNAMITE.—Through the influence chiefly of Lord Kinnaird and the experiments with dynamite at Rossie Priory, the use of this valuable blasting agent has now been successfully introduced into Perthshire for quarrying purposes. Mr. Robert Monteith, Forteviot, was induced, through Mr. John Dow, Perth District Road Superintendent, to give dynamite a trial, and the first experiments were made at Freeland Quarry, Bridge of May, Torrence, and Struie Quarries, in all of which the rock is a very fine, strong, compact whinstone. In every instance the experiments were eminently successful, and in the opinion of those present dynamite is much more effective than gunpowder. In some instances, where only two bores were made in the rock, about 30 tons of mineral were dislodged. The most striking advantage is in the great economy of labour effected. Smaller and fewer bore-holes are required with dynamite, and hence there is also a great saving of tools and blasting fuse. Little or no stamping or stemming is required, loose sand, clay, or water being sufficient. In the experiments referred to water was employed. Mr. Monteith deserves much credit for having been, as it were, the pioneer in the employment of this highly valuable industrial agent in Perthshire, and it is hoped the other quarrymasters will follow Mr. Monteith's excellent example.

BATH COLLIERY (near Bath, Somersetshire).—A seam of coal, 4 ft. in thickness, dipping south-west, has been cut during the week at this colliery, about 60 fms. from surface, in the new pit now sinking, about 700 yards south of the old pit and workings. The coal is of very good quality, and suitable for both house and steam purposes. This discovery, proving coal over a very large area of the new land acquired by the company about a twelvemonth ago, is most important and valuable to the whole district.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for Oct. is 16. They have consumed 2142 tons of coal, and lifted 15,200,000 tons of water 10 fms. high. The average duty of the whole is, therefore, 47,700,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Crenver and Wheal Abraham—Stuart's 90 in.			Millions 56·6
Ditto	ditto	—Pelly's 80 in.	48·8
Ditto	ditto	—Willyams's 70 in.	50·1
Cook's Kitchen—85 in.			48·7
West Basset—Thomas's 60 in.			54·7
West Chiverton—New 80 in.			48·4
West Wheal Seton—Harvey's 85 in.			58·8

MOTIVE POWER FROM NATURAL GAS.—Messrs. Rogers and Burchfield, of Apollo and Leechburg, Pennsylvania, have utilised a gas vein for creating the motive power for their machinery. After boring to a depth of 1200 ft. at Apollo, they have at length struck a vein of gas which more than realises their most sanguine expectations. The same firm made a similar discovery at Leechburg, in this county, over a year ago, and are now running the whole of their ex-

tensive iron and rolling establishments there with gas for fuel as a substitute for coal, turning out over 80 tons of iron per day. They propose to utilise this new discovery for the same purpose as Apollo. These mills have been in operation for some time past, notwithstanding the dullness of the times, giving employment to several hundred men, and are under the entire management of Mr. Wm. Rogers, jun. Our correspondent adds that when this natural gas has been utilised it will at once save Mr. Rogers £150 per day in coal.

REPORT FROM CORNWALL.

Nov. 26.—Steady and quiet progress has been the characteristic of the mining affairs of the county during the week. We are still waiting for the long-delayed advance in the tin standard, but, meanwhile, shareholders in copper mines have been greatly cheered by the substantial improvement which has taken place in the standards for copper. Our copper mines, no less than our tin mines, have been greatly in need of encouragement, and it is exceedingly satisfactory to see that so many progressive copper mines are now entering the Dividend List. Both for tin as well as copper mines 1875 ought to show a very marked improvement upon 1874. Concerning the prospects of lead mining there is not much to be said. Mary Ann and Trelawny are gone; West Chiverton is, to put the best face upon it, not looking lively; Herodsfoot maintains its own; but Old Treburgett is the only one that appears to be really doing well. It is to be hoped that the attempt to resuscitate Wheals Ludcott and Wrey may succeed.

The changes at West Chiverton and South Condurrow still continue to occupy attention. The best proof that can be given of the estimation in which Capt. Juleff's abilities as a miner are held is that since he left the former mine he has received a superior appointment. We shall see by-and-bye what the new management at West Chiverton is made of, though we hope for the sake of fair play that it will not be made responsible for the deficiencies of the mine. The general feeling in the county concerning South Condurrow is, as we have already said, that no charge of want of efficiency can be laid against the Messrs. Vivian. There has evidently, however, been a good deal of friction in the relations between them and the committee; hence the unfortunate turn which affairs have taken. Mutual confidence and respect are even more essential elements in the conduct of mining enterprise than in ordinary business concerns.

In their bearing upon the interests of mining the new parliamentary or railway notices are not of very great importance, except in one direction, and railway enterprise in the West evidently shares in the dullness prevalent throughout the country. We have heretofore noted the fact that the Truro and Perran line is to be abandoned. A bill will, however, be brought on for a line for the Bodmin and Wadebridge Railway through the North of Cornwall to a junction with the Launceston and South Devon Company's line at Launceston. This would be in effect an extension of the Cornwall Minerals Railway system, and would have very important results in the development of a district of great importance and promise in many ways; which contains the Old Treburgett Mine and a large area of lode-traversed ground, and which contains also the extensive and important slate quarries of the Delabole district. Another project which may have some relation to mineral productions is for the improvement of the Old Plymouth and Dartmoor Railway, which traverses a district abounding in granite, and having extensive deposits of china clay.

The traffic on the Cornwall Minerals Railway is steadily increasing, though it is almost entirely confined to china-clay, and for the present the huge piles of iron ore which have been and are being raised at Perran remain undiminished. Never within the memory of the oldest inhabitant was Fowey one-tenth so busy as now. Several vessels frequently arrive in one day, and the facilities for shipment are so great that they are dispatched with the utmost promptitude. And yet the system is in its infancy.

Mr. Robert Hunt, F.R.S., the Keeper of the Mining Records, has been enabled this year to issue his Mineral Statistics at an earlier date. As yet, however, we have only the general summary before us, and cannot, therefore, present a clear and adequate view of the produce of the two great mining counties of the West—Cornwall and Devon. Tin ore, however, so far as the United Kingdom is concerned, is only raised within their limits, and, therefore, Mr. Hunt's figures thereon apply only to them. He gives the black tin raised in 1873 as amounting to 14,884 tons 17 cwts., of a value of 1,056,835*l.*; so had nearly all the copper ores raised in the United Kingdom came from this district, and we find that their production was 80,188 tons 10 cwts., of a value of 342,708*l.* Iron, lead, and zinc ores and mundic are of too general occurrence to render the quotation of the figures concerning them any adequate guide to the yield of Cornwall and Devon, but there are certain smaller matters which may be claimed as almost, if not quite, exclusively to be reckoned among their items of mineral wealth. Thus we find that arsenic was produced to the value of 22,854*l.*; manganese to the value of 57,766*l.*; ochre and umber, 5410*l.*; wolfram, 526*l.*; bismuth, 68*l.*; cobalt, 12*l.* The production of black tin as compared with 1872 shows a slight increase of 619 tons.

The annual meeting of the Royal Institute of Cornwall has been held this week at Truro. The report of the council recommended that M. Moissonet, as a recognition of the great value of his work on the rich parts of lodes, should be elected a honorary member, which was done. The chief parts of M. Moissonet's treatise are being translated by Mr. J. H. Collins, F.G.S., and will appear in the annual report of the Miners' Association. Dr. Jago, F.R.S., continues President of the Institution for another year. Among the presentations to the museum announced were some specimens of copper ore from the Cape, from Mr. John Michael Williams; of tin ore from Australia, by Mr. Nicholas; and of the mineral wavellite—rare in Cornwall—from Mr. J. H. Collins.

TRADE OF THE TYNE AND WEAR.

Nov. 26.—The Coal and Iron Trades continue very dull, on the whole, and short time is worked at many of the works both in Northumberland and Durham. Good house coal is still sold at 16s. per ton and steam coal at 14s. per ton, but the demand for the latter is very limited. Coke of best quality still brings 14s. to 15s. per ton. At most of the coal works throughout the great district short time has been resorted to, with a view of possible keeping the price of coal up to a point that will enable the masters to pay the present rate of wages, and make fair profits also. This accounts for the curious fact that coals of best quality are still kept up to comparatively high prices, but as inferior coals of all kinds and manufacturing and small coals are sold at low rates only few masters got the benefit of the higher rates. It is clear that the men by the action of their Unions have for the time put an end to a great extent of free trade so far as getting labour and selling coal is concerned, but how long this will continue in the face of constantly increasing production it is difficult to say. A strike of miners has taken place at the Woodhouse Close Collieries, near Auckland. It appears that six-day men have been paid what they conceive to be 5d. per day less than the average wage received by that class of men in the county, and on the masters refusing to pay this wage the whole of the men, numbering 200, have turned out.

Most of the new winnings for coal and extension of old works are making progress, and there is a full supply of men of all kinds for the work. Of course, the high rate of wages received by the miners continues to attract men from other occupations, and the dull state of many branches of trade also operates in the same direction.

The Iron Trade continues very quiet, on the whole, but prices are well maintained, and the demand for pig continues pretty good; foundry has been very flat, while for forge-iron there is a good demand, and large deliveries have been made. It is not likely that any change of importance will now take place in this trade during the present year. At Middlesborough, on Tuesday, there was a good attendance, and quotations were as follows:—No. 1, 69s.; No. 3, 64s.; No. 4 foundry, 60s.; No. 4 forge, 57s. 6d. to 58s. 6d., net cash, f.o.b. There continues to be a large shipment of iron. The finished iron trade shows no improvement, and there is, of course, no probability of the works closed being started again at present. The rail trade is exceedingly dull, and manufacturers have very bad prospects. Some branches of the iron, engine, and foundry trades are prosperous, and many good orders are in hand on the Tyne for marine and locomotive engines. The iron shipbuilding trade is at present dull. The demand for plates and bars continues pretty good; quotations are without change. At the Witton Park Ironworks a number of puddlers, ball furnacemen, &c., have been paid off owing to the dulness in the trade.

REPORT FROM SCOTLAND.

Nov. 25.—The Warrant Market was very inanimate during the latter part of the past week, but the price was maintained at a comparatively high point betwixt 87s. and 86s. This week there has been more desire shown to realise. On Monday business was done from 85s. 3d. to 85s., and yesterday as low as 84s. cash was accepted for several lots, closing rather firmer, with buyers offering 84s. 6d. To-day business has been done at 84s. 6d. for prompt cash, closing sellers thereat. There is not much change to report in makers' prices, but in one or two cases reductions have taken place, and the tendency is rather in favour of buyers.

	No. 1.	No. 3.
G.m.b. at Glasgow (deliverable alongside)	90s. 0d.	81s. 0d.
Gartsherrie ditto ditto	105 0	85 0
Coltness ditto ditto	102 6	85 0
Summerlee ditto ditto	97 6	82 0
Carnbroe ditto ditto	94 0	82 0
Monkland ditto ditto	90 0	81 0
Clyde ditto ditto	90 0	81 0
Govan, at Broomielaw ditto	90 0	81 0
Langloan, at Port Dundas ditto	102 6	83 0
Calder ditto ditto	105 0	83 0
Glengarnock, at Ardrossan ditto	96 0	84 0
Eglinton ditto ditto	88 0	79 6
Dalmellington ditto ditto	88 0	80 6
Carron, at Grangemouth, selected, ditto	100 0	—
Shotts, at Leith ditto	100 0	84 0
Kinneil, at Boness ditto	95 0	78 6
Bar iron	£10 0	—
Nail rods	10 0	—

SHIPMENTS.

Week ending Nov. 21, 1874	Tons 13,700
Week ending Nov. 22, 1873	10,324
Increase	3376
Total decrease since Dec. 25, 1873	151,409
Imports of Middlesborough pig-iron into Grangemouth:—	
For the week ending Nov. 22, 1873	Tons 2,977
For the week ending Nov. 21, 1874	2,495
Decrease	482
Total increase for 1874	47,463

The tendency of the prices of pig-iron is to greater ease, parcels being placed for January next at a little over 83s. a ton. Some of the favourite brands of makers' iron are even now purchasable at about 2s. 6d. under late quotations, showing that there is rather a tendency to lower prices. The stock in Connal's store is now about 23,000 tons, and the furnaces in blast are nearly equal to the same period of last year, the number being 120 against 122. Makers are rather willing sellers, and are doing what they can to augment stocks, which have become so depleted by the irregular way in which the miners have laboured during the earlier months of the year.

The untoward condition of the Finished Iron Market has had the effect of reducing prices below the list, 9*l.* 12s. 6d. to 9*l.* 15s. being now the current quotations, less the usual discount for bars. Makers have no hope of bettering their condition till the beginning of the year, when they expect to see some briskness. It is reported that a large contract for pipes for the Continent has been placed here, and it is said that there are further enquiries for the same class of castings. Melters may thus look forward to a good trade in the beginning of the year. The shipbuilding trade is still unsettled, waiting the announcement of the amount of the reduction which is to take place from the 30th current; and marine engineering will be simultaneously affected by the result, whether for good or evil.

The prices of Coals are so weak that a reduction in household descriptions is imminent. In shipping coals there is no change, prices being very low. On the East Coast a little more is being done, both in shipping and household, but the stocks remain undiminished. Wishaw, 8s. to 9s.; splint, 8s. 6d. to 10s.; house, 8s. 9d. to 12s.; steam, 9s. 6d. to 11s. 6d.; gas, ordinary, 18s. to 26s.; best, 37s. 6d. to 40s.

A brisk correspondence has been carried on during the last 10 days regarding the uncertainty of the weight of coal cargoes, and which vary very much from the quantity shipped when they arrive at their port of destination, much to the annoyance of coal brokers who supply the cargoes and also to the shippers. There is no doubt that this difficulty could be effectually overcome by the use of Duckham's patent hydrostratic weighing machines, and for which Kennedy, Bennet, and Co., St. Enoch square, are the agents. These machines simply hook on to the crane, and by means of a self indicating dial the weight is shown while the wagon or other article is being swung on board. The energetic engineer of the Clyde Trust has recognised their utility by employing them in connection with several harbour cranes, where they may be seen almost daily at work. They have been extensively adopted in Her Majesty's dockyards and the principal harbours and works in the kingdom; and recently, after a series of severe tests, have been reported on most favourably, and recommended for use in the service by the commissioners appointed by the United States naval authorities.

The estate of Drimsynie, Argyllshire, is reported to have been purchased for Mr. Hugh Neilson, ironmaster, for 32,700*l.*

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the week business has been small, and prices declined, with very few exceptions. Coal shares are flat; Niddries, however, keep remarkably firm, and have further advanced. Copper shares are nearly all lower, but not flat, as a good demand has been kept up for most of the latter descriptions by investors. Dunsley Wheal Phœnix have further declined to ¼, ½, but will doubtless improve again as soon as they commence to take tin down from the recently discovered lode. In American shares and Oil shares no movement of importance has taken place. In Miscellaneous London and Glasgow Engineering and Iron Shipbuilding Shares, at 23 to 25, have fully recovered the late depression, but will still at present prices yield 16 per cent. on an investment. A detailed list of the several days' business follows:—

On Thursday last the market was rather flat, and prices declined, with the exception of Niddrie. Benhar done at 14½; Cairntable, 5¼ to 5½; Ebbw Vale firmer, at 22⅛ to 22¾; Emma done at 20s., closing 20s. to 21s.; Glasgow Caradon done at 33s. 6d., closing 33s. to 33s. 6d.; Port Washington done at 80s., but close 77s. 6d. to 80s.; Marabella done at 6 and 5⅞, closing 5¼ to 5⅞; Merry and Cuninghame done at 72s. 6d. and 72s., closing 72s. 6d. just; Monkland done at 90s., closing 90s. to 91s.; guaranteed preference unaltered, at 8⅛ to 8¼. Niddrie were in good demand, done at 58s. and 58s. 6d., then went up to 59s. and 60s., closing at these prices; Tharsis were largely dealt in, but declined on realisations, closing 27⅝ to 27¾; new shares also weak, at 19 to 19¼. Young's Paraffin rather lower, at 5⅛ to 5¼; London and Glasgow Engineering advanced to 22½ buyers, but no sellers.

On Friday a good business was done, but prices were mostly lower. Benhar done at 14¼, closing 14½ to 14¾. Cairntable, 5¼ to 5½. Emma done at 20s. 6d., closing 20s. to 21s. Glasgow Caradon opened good, at 34s., on the result of the sale of ore yesterday, but again declined, and close 33s. to 33s. 6d. Port Washington done at 80s., closing 75s. to 78s. Huntington done at 57s., closing 56s. 6d. to 57s. 6d. Marbella again lower, done at 5⅞, closing 5 13-16ths to 5 15-16ths. Merry and Cuninghame firm, done at 72s. 6d., closing 72s. 6d. to 73s. Monkland ordinary done at 90s., closing 90s. to 91s. Guaranteed preferences, 8½ to 8¼. Niddrie again in good demand, at 60s. to 60s. 6d.; this price makes a rise of 10s. per share since last Friday, and has mainly been occasioned by a rumour that the Benhare and Niddrie Companies are going to amalgamate at par. Panulcillo wanted, at ¾, but no seller under 1¼. Tharsis opened at 27⅝, but declined to 27½, closing firmer again, at 87⅜ to 27½; new shares unchanged, at 19 to 19¼. Young's Paraffin, 5⅛ to 5¼. London and Glasgow Engineering, at 23 to 25, have fully recovered the late depression.

On Saturday a small business was done, and prices were mostly lower. Cairntable, 5¼ to 5½. Canadian Copper Pyrites, flat, at 45s. to 48s. Cwm Bychan, steady, at ¾ to ⅞. Cwm Lery, ⅛ better, at ⅝ to ⅞. Ebbw, lower, at 22 to 22¼. Emma, 21s. to 22s. Glasgow Caradon done at 32s. 6d., closing 32s. to 33s.; the sale of copper ore, on Thursday, by this company was exceedingly good—better than any one for the last 14 months at least. The amount of ore sold was 240 tons, realising 1506*l.* odd, or an average of 125s. 6d. per ton; at this time last year the amount was 250 tons, which realised 1290*l.* odd, or an average of 103s. 3d.; it will thus be seen that Glasgow Caradon is getting fully 22s. more per ton for its produce than it did at this time last year. The price of the shares was then 41s. to 42s., now they are 32s. to 33s.; surely there is room here for a great improvement in price. A comparison with last month's sale is equally favourable. Gunnislake (Clitters), lower, at 1 to 1¼, notwithstanding that a dividend of 1s. per share was declared at the meeting on Thursday. Huntington done at 57s., closing 56s. 6d. to 57s. 6d. Marbella, done at 5⅞, closing 5 13-16ths to 5 15-16ths. Merry and Cuninghame, 72s. 6d. to 73s. Nant-y-Glo and Blaina, preferred, lower, at 44 to 48. Niddrie, done at 60s., closing 60s. 6d. to 61s. 6d. Tharsis done at 27½, ⅜, and ¼, closing 27⅜ to 27½; new shares, 19 to 19¼.

On Monday a fair business was done, but the market was without animation. Benhar, 14½ to 14¼. Canadian Copper Pyrites firmer at 46s. to 47s. Cairntable, 5¼ to 5½. Ebbw Vale improved to 22½ to 22⅝, but close unchanged at 22 to 22¼. Emma firmer at 21s. to 23s. Flag-tiff also better, at 1⅞ to 2. Glasgow Caradon unchanged, done at 32s. 6d., closing 32s. to 33s. Port Washington, 75s. to 78s. Huntington done at 57s., closing 56s. 6d. to 57s. 6d. Marbella firmer, done at 5⅞ and 118s., closing 5⅞ to 5 15-16th. Merry and Cuninghame done at 72s., closing 72s. 6d.; the all-paid shares, however, declined to 9¼ to 196s. Monkland ordinary, 89s. to 90s. Guaranteed Preference, 8¼ to 8¼. Niddrie again strong, done at 62s. with buyers over, sellers at 63s. Omoa and Cleland flat, done at 54s. 6d., closing 52s. to 53s. Tharsis done at 27⅜, closing 27¾ to 27 7-16th. New shares weak, done at 19, with sellers remaining, buyers at 18¾. Young's Paraffin done at 5¼, closing good at 5⅜ to 5½. Scottish Wagon, 12 1-16th to 12⅛. A transaction took place to day in the shares of the Richmond Consols Mine at 139s.

On Tuesday the business done was small, and prices were not much altered, although the tendency was downwards. Cairntable shares done at 109s., and a small lot also at 5¼. Cwm Bychan shares lower, at 5⅛ to ⅞. Cwm Lery shares also lower, at ⅜ to ⅝. Dunsley Wheal Phœnix shares were pressed for sale, the last report from the mine not being considered satisfactory; transactions took place as low as 3s., but the close is better, at 3-16ths to ¾. Ebbw shares done at 22¾, closing 22⅛ to 22⅜. Emma shares, 21s. to 22s. Glasgow Caradon shares firm, at 32s. to 33s.; new shares better, at 21s. 6d. to 22s. Huntington shares also better, done at 57s., closing 57s. to 58s. Islay Lead shares still firm, at 3-16ths to 7-16ths. Marbella shares lower, done at 5 13-16ths and ¾, closing 5 11-16ths to 5 13-16ths. Merry and Cuninghame shares done at 72s. 6d. and 72s., closing 72s. 6d. Monkland ordinary shares, 89s. 6d. to 90s.; guaranteed preference shares done at 8¼, closing firm at 8 3-16ths to 8¼. Niddrie shares done at 62s. Panuncillo shares lower, at ½ to 1. Scottish Australian shares, 1⅜ to 1⅝; the directors of this company announce that they have received advices from the Lambton Colliery, dated Oct. 1. The sales of coal for the month of September amounted to 11,233 tons. With reference to the company's new copper property near Rockhampton, the details of the purchase of which and an extract from Capt. J. H. Holman's report on it, which was exceedingly favourable, appeared in the half-yearly report lately issued. Mr. Morehead, the manager of the company in Australia, reports that Capt. Holman had commenced to open it up, and was raising good ore, also expressed himself on this closer examination as fully satisfied that it would bear out the very favourable opinion above referred to. Tharsis shares quite neglected, done at 27¼, closing 27¼ to 27⅜; new shares done at 19. Young's Pyraffin shares, 5¼ to 5½.

On Wednesday a small business was done, and prices generally declined. Benhar, flat at 13¼ to 14. Cape Copper, 30¼ to 30½. Emma done at 21s., closing 21s. to 22s. Huntingdon done at 57s. 6d., closing 57s. to 58s. Gunnislake (Clitters), 1 to 1¼; it is expected that this company will be able to declare another dividend at their next meeting. Javali in demand at 4s. to 5s. Lochore and Capledrae lower, at 7⅛ to 7¾. Marbella also lower, done at 5¾, 11-16ths, and 5⅝, closing 5¾ to 5⅞. Merry and Cuninghame done at 72s., and 72s. 6d., closing at these prices. Monkland ordinary done at 90s., 89s., and 89s. 6d., closing 89s. to 90s. Guaranteed Preferences lower at 8⅛ to 8¼. North Cornwall Kaolins nominal, 1¼ to 1⅜. Niddrie done at 62s. Omoa and Cleland very flat, done at 50s., 50s. and 47s. 6d., closing sellers at 47s. 6d., buyers 46s. Tharsis shares were not much dealt in, from 27¼ to 27 1-16ths, closing 27 1-16ths to 27⅛. New shares, 18¾ to 19. West Maria and Fortescue in good demand, at ¼ to ½. York Peninsula ordinary very firm at 8s. 9d. to 11s. 3d.; and the Guaranteed Preferences in demand, at 4s. to 6s. Subjoined will be found the latest prices:—

Amount share.	Amount paid up.	Name.	Latest price.
COAL, IRON, STEEL.			
£10	4	Arniston Coal (Limited)	4
10	10	Benhar Coal (Limited)	13¾
100	35	Bolckow, Vaughan, and Co. (Limited) A.	55½
10	5	Cairntable Gas Coal (Limited)	109s.
10	10	Chillington Iron (Limited)	6
32	29	Ebbw Vale Steel, Iron, and Coal (Limited)	22¾
10	3	Fife Coal (Limited)	5¾
10	7	Glasgow Port Washington Iron and Coal (Limited).	78s.
10	10	Ditto All paid	6¾
10	10	Lochore and Capledrae (Limited)	7¾
10	10	Marbella Iron Ore (Limited)	5⅝
10	3½	Merry and Cuninghame (Limited)	72s. 6d.
10	10	Ditto All paid	196s.
10	10	Monkland Iron and Coal (Limited)	89s. 6d.
10	10	Ditto 7 per cent. Guaranteed Preference.	8¼
100	100	Nant-y-Glo and Blaina Ironworks pref. (Limited)	46
10	2	Niddrie Coal (Limited)	62s.
10	4	Omoa and Cleland Iron and Coal (Limited)	47s. 6d.
1	1	Scottish Australian Mining (Limited)	1½
1	5s.	Ditto New	⅜
50	50	Shotts Iron	78½
10	4	Ditto New, issued at 2½ premium	6
COPPER, LEAD, SULPHUR, TIN.			
10	7	Canadian Copper Pyrites (Limited)	47s.
10	10	Ditto All paid	6¼
10	7	Cape Copper (Limited)	30¼
1	1	Cwm Bychan Silver-Lead (Limited)	¾
1	1	Cwm Lery Lead (Limited)	½
5	5	Drake Walls Tin and Copper	5
2	2	Dunsley Wheal Phœnix Tin (Limited)	¼
—	25	East Black Craig Lead (Limited)	25
1	1	Glasgow Caradon Copper Mining (Limited)	32s. 6d.
1	15s.	Ditto New	21s. 6d.
—	5¼	Gunnislake (Clitters)	1¼
10	9	Huntington Copper and Sulphur (Limited)	57s. 6d.
1	1	Islay Lead (Limited)	⅜
25s.	23s.	Kapunda Copper (Limited)	¾
4	4	Panulcillo Copper Mining (Limited)	¾
10	9	Rio Tinto (Limited)	8¼
10	10	Russian Copper Mining (Limited)	2¼
10	10	Tharsis Copper and Sulphur (Limited)	27⅛
10	7	Ditto New	19
—	89s.	West Maria and Fortescue	¾
1	1	Yorke Peninsula Mining (Limited)	½
1	5s.	Ditto 15 per cent. Guaranteed Preference	¾
GOLD, SILVER.			
5	5	Colorado Terrible Mining (Limited)	4
20	20	Emma Silver Mining (Limited)	21s.
10	10	Flagstaff Silver Mining (Limited)	1⅞
2	2	Javali Gold Mine (Limited)	¾
5	5	Last Chance Silver Mining (Limited)	1
OIL.			
10	7	Dalmeny Oil (Limited)	5⅞
5	5	Midlothian Mineral Oil (Limited)	3
10	8	Uphall Mineral Oil (Limited)	5
10	10	West Calder Oil (Limited)	7½
10	8½	Young's Paraffin Light and Mineral Oil (Limited)	5¾
MISCELLANEOUS.			
10	10	Conglog Slate and Slab (Limited)	10¾
10	10	Highland Peat Fuel (Limited)	10
50	25	London & Glasgow Engineering & Iron Shipbuilding	23
1	1	North Cornwall Kaolin (Limited)	1¼
20	7½	Peruvian Nitrate (Limited)	5
10	10	Scottish Wagon Company (Limited)	12⅛
10	1	Ditto New	22s.

Last day for this account Nov. 26; settling day, Nov. 30.

NOTE.—The above list of mines and auxiliary associations is as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in this list, they will be good enough to communicate the name of the company with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker

Post Office Buildings, Stirling, Nov. 26.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 26.—The condition of the South Staffordshire Iron Trade this week in regard to new transactions has been one of dulness. Manufacturers of unbranded finished iron are experiencing considerable competition on the part of producers in the North Country districts, especially in nail sheets, which are offering at 10s. per ton below South Staffordshire prices. Common bars are changing hands at 9*l.* 5s., and common sheets (singles) at 12*l.* 5s. per ton. Branded iron remains on the two-fold basis of 10*l.* 10s. and 11*l.* per ton for bars, the latter quotation being only realised by a few of the leading firms. Galvanised roofing sheets on colonial account are in steady demand at about late rates. The pig-iron market is, on the whole, steadier than that for finished produce, and prices are fully as strong as reported a week ago. Common cinder pig is 3*l.* 5s. to 3*l.* 10s. per ton, while for all-mine (hot air) pigs a good brand as much as 5*l.* 5s. to 5*l.* 10s. per ton is being realised. Some fair quality pig-iron, peat mine, and part flue cinder are being largely produced in the district, and command 4*l.* 10s. to 4*l.* 12s. 6d. per ton. Cold-blast iron of Shropshire make is coming into South Staffordshire in steady quantities, and at fully supported rates. The current consumption of pig-iron in South Staffordshire is so much in excess of the local yield that the district is largely indebted for its requirements to outlying centres of production.

The South Staffordshire Mines Drainage Commissioners have appointed Mr. Rupert Kettle as Chairman of Appeal in matters of dispute arising out of the drainage rate under the recent Act. The appointment has given general satisfaction throughout the district. It is indeed questionable whether under all the circumstances of the case a better selection could have been made for this important office.

The Coal Trade in South Staffordshire is more active than recently reported as regards best coal and lumps, but fine slack is dull of sale, the supplies considerably exceeding the current demand. Good Thick coal is steady at the following quotations:—Best, 18s.; seconds, 13s.; lumps, 12s.; and engine slack, 6s. per ton. Merchants are giving out orders somewhat more freely, with the view of getting up their stocks against the severest part of the winter season. Common coal on the Wolverhampton side of the district is being offered at 11s. per ton for forge purposes.

As usual at this season of the year, the iron trade of North Staffordshire is far from buoyant. The current sales of pig-iron and ironstone are very restricted, but on account of previous sales regular deliveries are being made to meet the requirements of local

consumers, stocks in the district being by no means heavy. The finished iron trade is very quiet, and there is little prospect of an early improvement. The output of coal exceeds the current demand, though the latter is steadier then recently reported.

To-day's quotations on the Birmingham Stock Exchange included the following:—Chillington Iron, 6¼; John Bagnall and Sons (Limited), 7¼; Pelsall Coal and Iron, 2½ dis.; Patent Shaft and Axle (Limited), 6 prem.; Patent Nut and Bolt (Limited), 4 prem.; Gloucester Wagon, 15; Birmingham Wagon, 17¾: Muntz's Metal (5½l. paid), 3½ prem.; Cannock and Huntington Colliery, ¼ dis. The general tone of the market for stock and shares in local mining and manufacturing concerns is, on the whole, steadier than we were able to report a fortnight ago.

The question of the profitable utilisation of blast-furnace slag, in which direction successful experiments have been made on the Continent, is engaging the attention of some of the leading ironmasters in North and South Staffordshire.

At the Tipton Police-court on Tuesday a marine store dealer, named Wynn, was convicted of purchasing a load of iron without making any register of the transaction. He was fined 20*l.* and costs, a previous conviction being proved against him.

An important decision has been pronounced this week by Mr. Rupert Kettle in the Dudley County Court on the oft-disputed point as to whether colliers were entitled to the perquisite of "allowance coal" during illness. The case resolved itself into the question of local custom, and after hearing a large number of witnesses the judge decided in favour of the miner by whom in this instance the claim was made. A case was, however, granted for a superior court.

The demand for machine castings and other iron foundry produce of the heavier class is moderately well sustained in the Black Country, and at the machinists' and fitting shops there is a very fair degree of activity. Wrought-iron tubing, except in the gas-tube branch, does not show any great improvement since our last report. For light miscellaneous hardware of most leading descriptions the demand begins to grow quieter, as usual at this period of the year.

REPORT FROM MONMOUTH AND SOUTH WALES.

Nov. 26.—There still no appreciable change to be noticed in the Iron Trade, and but little better prospect of improvement. It is hardly to be expected that the reduction in the wages rate will cause much activity in business for a few weeks, if at all. Finished iron does not appear to be in request on any account, and as the end of the year is so near it cannot be expected that buyers will make any speculative purchases. Though the reduced rate of wages will prove some relief to manufacturers, it will not enable them to lower quotations to such an extent as will offer an inducement to customers to purchase beyond their requirements, which are, and probably will be, small for some time to come. The clearances of railway iron to the foreign markets, it is hardly necessary to say, continue very small.

It is gratifying to find some signs of resuscitation at the Cyfarthfa Works. That establishment has been little better than at a stand still for some months past, and there has been a good deal of distress in the neighbourhood in consequence. This week one or two of the mills have been set in motion, and it is expected that from time to time the various departments will again be in operation. As a sort of counteraction, however, the Cwmavon Works, in the Aberdeen district, have been stopped this week, and the majority of the men who were employed there have sought employment in other localities.

But little further has been said by the ironmasters about the 10 per cent. reduction; but the ironstone miners appear still to be in a ferment about it, though they have not struck. Meetings have been held during the week, at which resolutions have been passed expressing confidence in the Union, and determination to support it.

The position of the Tin-Plate Trade has undergone no further appreciable change. A meeting of tin-plate workers has been held this week to consider a proposition made by some half-dozen of the masters. They intimated to the men their desire to establish a board of conciliation, so as to avoid strikes or locks out in the future. This is what the men have agitated for for some time, but before accepting the proposition now, they have appointed a deputation to wait on the six masters in question, to ascertain whether their proposition represents the wish of the whole of the tin plate masters.

The colliers, who thought themselves secure from the misfortune that had befallen the ironworkers and miners, have been taken by surprise this week. At a meeting of the colliery proprietors at Cardiff, and presided over by Mr. R. Fothergill, M.P., the following resolution was passed:—"It being the unanimous opinion of this meeting that a reduction in wages is necessary, it is resolved that, in conformity with the arrangement made with the men on Aug. 26 last, the men's representatives be invited to meet the council on Friday." To some most intimately acquainted with the movements of the masters a foreshadowing of this course was observable perhaps a week ago, but, generally speaking, the announcement conveyed in this resolution is about as unexpected as ever was experienced. The reason given by the colliery proprietors for this step is that, except for best qualities, they experience very considerable difficulty in securing customers for their coals, and prices are very low. It must be admitted that while latterly there has been a brisk trade doing with the foreign markets, the house coal business has shown a general falling off, while the output has been increasing. There is no doubt, however, that the employer will have considerable difficulty in convincing the colliers that the reduction now proposed is really called for, and it may be expected that some determined opposition will be offered to the carrying out of the reduction. The notice given to the men is very short, and it is hardly likely that they will be prepared to meet the Council on Friday (to morrow), because they have not had time to confer with each other on the matter.

At the Brynore Coal and Coke Works important extensions and improvements have of late been carried out, and the company will shortly be selling a large quantity of coal and coke. For coking purposes the Brynore coal is not to be excelled. The company consists mainly of Birmingham capitalists.

REPORT FROM THE FOREST OF DEAN.

Nov. 26.—The strike is firm and determined, neither party being willing to give way. The colliers, indeed, feeling and knowing that trade was brisk, and that prices tended upwards, consider that they have just cause for resisting a 10 per cent. reduction, are fully resolved to stand their ground. The masters who gave notice of reduction have issued a letter this week, in which they furnish their reasons for insisting upon the drop, the principal of which are the adoption of the eight-hour system, paying the men for weight. The eight-hour system they put down at 25 per cent., and 40 per cent. on wages, whilst their loss for paying the men for cutting coal by weight instead of by guessing they put down as equal to 13 per cent. loss, so putting all together they say the difference to them amounts to about 80 per cent. This method of computing is very unsatisfactory to the public, and the men on strike consider the reasons are worthless in point of argument. For as to the eight hour system, that does not affect the coal cutters' wages, since they are paid not for time, but for tonnage, or the actual amount of work done. Then as for the loss of 13 per cent. by paying the men by the ton instead in the old loose way, the men look at the averment as proof of the injustice which in this matter was formerly inflicted upon them. And as the masters' reference to the Radstock mens' wages, they repudiate the arbitration of Judge Kettle in their case, since he proceeded upon a false basis—*i.e.*, by giving the masters 2s. 6d. a ton before any basis was formed, under the pretence that the Mines' Act had entailed upon them additional expense, but as nothing of the kind has been conceded in any other part of the kingdom the Forest men do not intend to adopt it as a precedent. Another argument used by the masters is that at the Speech's House meeting last spring an agreement was made that if wages went down generally in other places the Forest men were to come down too. This version of the spring meeting, however, was not current at the time; and as now it is a disputed fact, if a fact, only the explanation of one side has been heard, and that not fully, we must wait to hear what Mr. Thos. Halliday has to say on the points raised by the masters, since he took a prominent part in that settlement. At present trade is at a dead lock as regards the "noticing" collieries, and it is truly sad to see the immense numbers of trucks all along the railway and sidings waiting to be filled, and nothing to cheer one with the hope that they will be speedily set in motion.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 26.—Very little change has taken place in the state of the iron and coal trades of Derbyshire, both of them being in a healthy state. A good deal of ironstone is being imported from Northamptonshire, and there is a full average make of pig in the southern and northern districts. In manufactured iron a steady business is being done, both in mill material and foundry work. Considerable progress is being made in the construction of the railway between Nottingham and Derby by the Great Northern, and which will be the means of opening out several extensive fields of coal, and ironstone as well. The coal trade has been very good so far as households are concerned, and rather more is being done with London, where prices are now about as high as they have been during any period of the year, although there is certainly no scarcity of coal. In the lead mining districts, including Wirksworth, Hassop, Cromford, Eyam, &c., the men are working steadily, but there has been no increase of late in the output of ore.

There is more activity in some branches of the Sheffield trades, especially in light fancy goods and silver-plated ware, and also in some descriptions of cutlery. The armour-plate mills have been doing very well, both on home and foreign account, but Bessemer material is not in such active request as it has been. The enquiry for rails is by no means active, and it is evident that the Sheffield manufacturers are at a disadvantage as compared with the works at such a place as Barrow. There is rather more doing in cast-steel, whilst the malleable works continue to be well employed. In the district to the north of the town of Sheffield the mills and foundries are now doing very well, particularly the latter, there being a good many orders in hand in connection with the new collieries now being opened out in nearly all directions. The demand for coal throughout the South Yorkshire district has rather improved of late, the weather of the last day or two having stimulated purchases. Steam coal, however, is not in such good request as it has been, shipments to the North of Europe having terminated for the season from the Humber ports. A large tonnage of Silkstone has been sent over the Great Northern to King's Cross, and the depôts in the metropolis. There is scarcely so much doing in engine fuel with Lancashire and Cheshire now that the miners in West Lancashire have resumed work. A large colliery, midway between Barnsley and Wakefield, it is understood, is going into "limited," as it is termed.

ASSURANCE OF COLLIERY OWNERS FROM LOSSES BY STRIKES, &c.—During the strike which took place in South Yorkshire and North Derbyshire in July last against a proposed reduction of wages the coalowners determined to form a company, with a capital of 200,000*l.*, in 10*l.* shares, to protect their interests. The Memorandum of Association was drawn up by Mr. Robert Baxter, of Westminster, the well known parliamentary solicitor, and presented and agreed to at a meeting held in Doncaster. The objects were stated to be "To afford relief to members subjected to losses by strikes of workmen, as well as in respect to the expenses of the pits as of the failure of the profits during the strike.—2. To assist in the settlement of all disputes between the members and their workmen, and to pay expenses incident to such settlement." Each firm has to assure its profits at a rate not exceeding 2s. 6d. per ton. Payments of assurance to be made in each case by the association in respect of profits on the quantity of coals actually being worked at the time when the pit was put on strike or restriction, taken on the average workings during the previous three months, such average not to exceed the rate at which the colliery is assured. In case of strikes, restrictions, or disputes, a meeting shall be called to consider the matter, and the owners of the colliery affected shall be guided by the instructions of that meeting as to the course to be pursued. The company has just been formed, and a large number of shares have already been taken up, as the whole will be, it is expected, in the course of a very short time. South Yorkshire and North Derbyshire will now have the most powerful combination of colliery owners in the kingdom, as it has also one of the strongest and wealthiest of Miners' Associations.

LIFE-SAVING APPARATUS—THE AEROPHORE.

The compact and thoroughly practical character of the aërophore has been already referred to in the *Mining Journal*, and its value has just had a further practical test in connection with the engineering works now going on at Daunt's Rock, Cork Harbour, for the purpose of testing the efficiency of a new diving apparatus patented by Denayrouze and Co., as a means by which the surveys can be more quickly executed. This firm has quite a European reputation for its inventions in connection with submarine and mining apparatus. For many years the company supplied the British Admiralty with what diving costumes they required, and those were, during the time that Denayrouze and Co. had the contract, considered the best that were made. They have obtained, amongst many prizes, gold medals of the Great Exhibition of Paris in 1867 (the only one awarded for diving apparatus); Havre, 1868; Lyons, 1872; and Vienna, 1873. They held the British contract until the siege of Paris stopped all Parisian trade, and prevented exports altogether. The obstacles, however, have now been removed, and a London branch of the firm has been established and placed under the management of Mr. R. Applegarth, a gentleman of great energy, and of extensive practical knowledge of submarine and subterranean mining. He arrived in Cork in the early part of the week, to look after the interests of the firm. In the experiments at Daunt's Rock Mr. Guichard, a member of the Paris firm, also took part, and they created very great interest, as the Government had officially accepted Mr. Applegarth's offer to place at their disposal the newly-invented submarine lamp, and because while the diving apparatus contained in itself all the recent improvements known to diving appliances, it had the additional merit of containing and embracing the means of communicating with the diver while under water, or at the bottom of a mine, and enabling him to communicate his wants to those on the surface by word of mouth. It was claimed for the invention that this could be done at any depth, and the greater depth the more distinct the diver's voice could be heard. Wednesday's experiments were simply of a military character, and consequently no civilians were present except the local agent for dynamite, an explosive which is considered very powerful for carrying out such works. They were carried out under the personal superintendence of Lieut.-Colonel Warren, R.E., commanding Royal Engineers of the south-west district, and were most successful.

In order to test the new speaking apparatus, Lieut. Chermside, R.E., went down, and several of the navy and military offices communicated with him by word of mouth when he was under water with most satisfactory results. When he had been down, as some thought, long enough, Capt. Stewart asked him would he wish to come up, and he replied that he would, his voice being clearly heard over water, although he was then down 7 fms., thus proving how successful is the speaking apparatus. When Lieut. Chermside came to the surface the submarine lamp was put over the side of the boat and lowered 6 fms. It was drawn up at intervals, and was shown to be burning brilliantly. It was then lowered again, and allowed to remain under water for about an hour, and when brought to the surface the light was as brilliant as when it was sent down. This proved how effectual this invention will be when divers have to descend into dark water at night time, or when it is necessary they should examine wrecks, for heretofore they had to trust mostly to accident if, in groping their way through ships' cabins they found any of the valuable property they were in search of.

It is only since M. Denayrouze invented a practical submarine lamp that the use of the diving dress could be adopted with utility in mines, and, although the application of these apparatuses is quite recent, they have proved of the greatest service in mines all over the Continent. The appliances were first adopted by the Germans, and they have proved very successful, as official reports state, in Westphalian and other continental mines. After the successful trial of the lamp, Serjeant Rees, an experienced and accomplished diver, went down in a Denayrouze dress, and descended to the extreme length of the air tube, which was 100 feet, and he felt so comfortable even at that depth that he had to be prevented from going further. He was spoken to through the speaking apparatus, and he answered all the questions plainly. The apparatus is composed of an india-rubber tube ending with a union joint, which is screwed on to an economised joint in the helmet, which serves as a sound box. The other extremity of the tube has a mouthpiece, by which the attendant sends down an order to the diver, or against which he places his ear when he wishes to hear an answer. The undulations of the sound strike against the thin metallic surface of the chamber of the helmet, and the words are distinctly heard by both. By this invention operations of the most arduous and dangerous nature are rendered compartively easy and safe, as the diver is enabled to explain by word of mouth any difficulty or danger he may be contending with. As it was the testimony of Lieut. Chermside and Serjeant Rees that they could hear much that was said to them, and as all that was said below water could be heard on the surface, it was considered that the speaking apparatus was a very successful invention, but that, like every new one, it required practice, and then it was generally believed it would be perfect. The divers connected with the Revenge were also under water in the naval regulation dress, but it was the general opinion that the Denayrouze costume, which is cheaper and lighter, was much more perfect.

Subsequent experiments were made at Spike Island Barracks for the purpose of testing the Denayrouze mining apparatus. A room, carefully closed to prevent ventilation, was filled with smoke by the ignition of a tar barrel, saltpetre, sulphur, and charcoal being also placed in the fire to charge the smoke with gases of the most poisonous and deadly character. It was in this poisonous atmosphere that the patentees of the new machines proposed to test their aërophore, as the new apparatus is called. It was not without feelings akin to apprehension that we witnessed the first experiment of a man going into and living in that deadly smoke. The first experiment was made with a steel knapsack, which has just been adopted by the Prussian military authorities for mining purposes. This knapsack consists of three barrels, made in the shape of a knapsack, and weighs about 26 lbs. It is intended as a portable air-carrying vessel, and contains sufficient compressed air to enable a man without the aid of other machinery to live for 15 minutes in any atmosphere, no matter how noxious. The knapsack is first supplied from the air-pump with compressed air representing 20 atmospheres. It is then strapped on the back of the operator, who is provided with a pair of spectacles surrounded with an air chamber, which presses so closely against the face as to protect the eyes from the effect of gases. The spectacles are also provided with a simple arrangement for gripping the nose, and so preventing the admission of foul air into the lungs through the nostrils. The most ingenious parts of the invention, however, are the regulator and respirator. The air coming from the knapsack passes into the regulator, which regulates the quantity of air necessary for breathing freely. The regulator consists of an air-chamber, which is closed by a metallic cap, covered with indiarubber. Through this passes a small rod working in a cylinder, which opens and closes with the inhalation and exhalation of the operator. The breathing tube is fixed under the air chamber, and at the other end is a mouthpiece, or flange, made of indiarubber, which is placed between the lips and teeth. To it are attached two projecting pieces, by which it is held firmly in the mouth. No air can pass into the mouth except that which the person draws through the tube. The respirator, or exhaling valve is that by which the exhausted air from the lungs is discharged without danger or difficulty. It is so constructed as to prevent the entry of the external air into the air reservoir, whilst at the same time it renders the movement of breathing perfectly free. Equipped in this machine, and provided with a lamp, which, like the aërophore, is specially patented, Mr. Salmon, the diver of the firm, entered the smoky cell. After being a short time in he returned, stating he had not sufficient air. This was remedied by the simple turning of a valve in the regulator, and Mr. Salmon returned to the room with his lamp. At this time the atmosphere inside was so thick that one looking through the window could not observe the fire inside. Neither could the operator nor his lamp be observed, and the fact of his being alive at all was only indicated by the noise of the exhaling valve, which resembled that of a man smoking. After being in the room five or six minutes the operator was called out, and when the mouthpiece and spectacles were removed he did not appear in the least degree oppressed, or in the want of breathing power.

Another description of machine, called "The Low Pressure Mining Apparatus," was next tested. This is worked by an air-pump similar to that required for the ordinary diving apparatus, and so long as the pump continues to act it will furnish pure air to the miner for an indefinite period. The two most important novelties are the regulator and the lamp. The regulator has two objects; it provides at the same time the air necessary for the miner and for the lamp; its weight is under 8 lbs. The lamp in outward appearance, weight, and size is identical with the ordinary safety-lamps, but it differs from them entirely on principle, inasmuch as it burns in an atmosphere wholly independent of that of the mine, the air coming from the regulator being always exempt from carburets of hydrogen. The lamp will, therefore, burn with perfect safety in the midst of the most noxious gases. The small weight and size of the regulator allow the workman complete liberty of movement. A private soldier and Mr. Guichard entered the chamber together equipped in this apparatus. For 28 minutes they remained inside, and before they came out Mr. Guichard taught the soldier how to speak, and a conversation, which was audible to those outside, was carried on between the two. They experienced no disagreeable sensation whatever, and, in fact, they could have remained there for any indefinite time. This machine is especially intended for mining operations, and on this subject the inventor has the following observations:—"There may from time to time arise special cases during accidents or from other cases when it is necessary not only to descend into the mine at once, but even to explore it to a considerable distance. Now if, once for all, ordinary precautions are taken beforehand to have the tubes properly disposed and wound in coils, the air-pump and the regulator may be connected with them in a few seconds. The pump is of so simple a nature that it can never, either from ignorance or disuse, fall into disrepair, whilst the internal valve of the regulator is so protected as to render it impossible for it to get out of order.

With regard to distant workings, it is evident that the depth which a miner can reach must be limited by the length of tubing at his disposal; and if it were necessary to work the pump outside the mine, this objection would in many cases prove fatal, but the pump itself is so small that it can be worked in a gallery, however narrow, and carried either by hand or on a small truck to the very threshold of the scene of the accident To meet the objections which may, however, be raised against the use of a long length of tubing, M. Denayrouze has introduced certain modifications to his original invention in the high-pressure apparatus. In this last-named machine there are six cylinders, which are capable of holding sufficient compressed air to last an ordinary person for two hours. By means of the air-pump the reservoirs are filled with compressed air to a pressure of 20 atmospheres. To one of these tanks or reservoirs is attached the tube which supplies the miner and the lamp with air, this is further attached to the regulator which the miner carries on his back. Over the supply of air he has full control, and he can regulate it at pleasure, either for his own breathing or for the light of his lamp. The exchange of empty for full cylinders can, as a matter of fact, be effected without the least interruption to the work, and thus a practically inexhaustible supply of pure air can be assured to the miner, no matter at what distance he may be from the pit's mouth. The lamp which is used in conjunction with the other inventions is almost similar to the ordinary safety-lamp, but there is this difference, that the great principle of the former is to support combustion within the lamp, not by means of the surrounding air, but through the agency of pure air passing through the regulator carried by the miner on his back.

As many of our mining engineers will be desirous of seeing the aërophore in use it may be mentioned that on Dec. 2 there will be a meeting of the South Wales Institute of Engineers, at Newport, when the aërophore and apparatus connected with it will be exhibited, and a paper read upon them. The new Prussian military apparatus will be shown and explained at the meeting, and will be referred to in our usual report of the proceedings.

HEATING LARGE TOWNS WITH PYROGEN GAS.

With coals at present prices, and the prospect of a sharp winter before us, the value of a proposal by which a given quantity of heat can be obtained with only two-fifths of the fuel now used will be readily estimated. Such a proposal is made in a pamphlet by Sir Francis C. Knowles, Bart., M.A., F.R.S., just printed for private circulation (Wyman and Sons, Great Queen-street), in which he very fully discusses the whole question of heating. He mentions that the annual consumption of coal in London exceeds 7,000,000 tons, of which he estimated 2,000,000 tons are used for gaswork and manufactories, and 5,000,000 tons for domestic purposes. The average proportion of coke or solid matter, including ashes, he takes at 60 per cent., most of the remaining 40 per cent. going off by the chimneys. It is this 40 per cent. which Sir Francis Knowles proposes to utilise by converting or partially converting it into pyrogen gas—a mixture of 75 parts by weight of carbonic oxide with 25 parts of nitrogen. The carbonic acid gas evolved from limestone in process of burning is passed over fuel at a strong red heat, when it "will take up a second atom of carbon, and will be converted into carbonic oxide gas, a gas of intense heating power." This gas, mixed with one-third its weight of nitrogen, becomes the pyrogen gas which Sir Francis uses. In the production of the carbonic oxide he proposes to employ anthracite dust, which at present is comparatively worthless. The cost of the pyrogen gas does not exceed 2d. per 1000 cubic feet, containing 23 lbs. of pure carbon, and 100 ft. of it would raise to 1000° C. 48 lbs. of fire-clay balls placed in an ordinary grate, and heated by means of jets entering below it.

The details of distribution, he remarks, would depend on many and various complicated circumstances of locality, positions of streets, proximity to railway stations, &c., all of which would have to be considered and met by the constructing engineers. The assumed consumption of two millions of tons of coke and anthracite coal, instead of five millions of raw coal, involves no doubt a large economy of labour and capital; but it by no means measures the whole economy which so great a change would bring about. We have in this estimate, liberal though it is, supposed that the same number of fires are to be kept burning. This is by no means necessary. In practice, there is every reason to believe that, though

the means of lighting them would remain, they would rarely be used. The absence of all soot in the products of combustion and their high temperature would soon lead to their passing through the tubes of tubular boilers, by means of which warmth could be distributed to all the other apartments of the dwelling, even in lodging-houses, while well-contrived apparatus for cooking comprised in a small compass, and heated by jets of the gas only when required, would meet all the domestic requirements of the inmates in houses let out in lodgings, and with an immense aggregate saving on the present system.

The principal and direct economy of fuel which Sir Francis Knowles contends will result from the adoption of his system is scarcely greater than the indirect and secondary saving due to the power of making a single fire suffice for the whole of a dwelling-house, for by this application of the heat, cooled in the gaseous products of combustion, we should in effect utilise the whole of the heat which goes to waste up our chimneys, the quantity of which must be enormous, while the power of complete ventilation incidental to the diffusion of heat by means of water-pipes would let in the State to enforce ventilation everywhere under the necessary right to regulate the distribution and the cost of the heating gas. The other point regards the refining and conversion of cast-iron, the original destination of this gas. It will be found upon making the calculation that the lime produced will barely suffice to afford the flux required to smelt from the ore in the blast-furnace the cast-iron to be converted. In heating towns, although so direct and happy an outlet does not exist for disposing of the lime, yet it will be found that its superior quality and its cheapness of production on so large a scale are sure, as indicated, to secure it a market. It may be added, moreover, that there is every reason to anticipate one most important use of this powerful calorific agent—that it will render the lime light a cheap and practical reality.

IN THE MATTER OF THE BESSEMER STEEL AND ORDNANCE COMPANY (LIMITED),

AND IN THE

MATTER OF THE COMPANIES ACTS, 1862 AND 1867.

THE CREDITORS of the ABOVE COMPANY are required on or before the 31st day of December, 1874, to SEND their NAMES and ADDRESSES and the particulars of their DEBTS or CLAIMS, and the names and addresses of their Solicitors (if any), to Mr. CHARLES FITCH KEMP, at No. 8, Walbrook, in the City of London, one of the Official Liquidators of the said Company; and if so required by notice in writing from the said Official Liquidator, are, by their solicitors, to COME IN and PROVE their said DEBTS or CLAIMS at the Chambers of the Vice-Chancellor Malins, at No. 3, Stone Buildings, Lincoln's Inn, in the county of Middlesex, at such time as shall be specified in such notice; or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such debts are proved.

Friday, the 15th day of January, 1875, at Twelve o'clock at noon, at the said Chambers, is appointed for hearing and adjudicating upon the debts and claims.

ALFRED RAWLINSON, Chief Clerk.

NEWMAN, DALE, AND STRETTON, 75, Cornhill, E.C.

Dated this 4th day of November, 1874.

MINING IN AUSTRALIA.

THE UNDERSIGNED, having a large connection in the Mining Districts of New South Wales, Victoria, and Queensland, are PREPARED to ACT as SOLE AGENTS in the Australian Colonies for the SALE of NEW PATENTS and IMPROVEMENTS in MINING MACHINERY and APPLIANCES.

W. C. BELLERIDGE AND CO.,
General Brokers and Commission Agents,
Squatter's Exchange, Sydney, New South Wales.

London Reference—Mr. E. H. BARLEE, Solicitor, 52, Old Broad-street, City.

MINING AGENT.

THE DIRECTORS OF THE COLORADO TERRIBLE LODE MINING COMPANY (LIMITED) are PREPARED to RECEIVE APPLICATIONS for the SITUATION of AGENT at their SILVER-LEAD MINE, in COLORADO, U.S.A.

To be sent, with references, testimonials, &c., to the Secretary, at the office, No. 21, Great Winchester-street, E.C., London, on or before the 12th December next.

IRON MINE IN GALICIA, SPAIN.

WANTED, CONTRACTS TO SUPPLY SUPERIOR IRON ORE (78 per cent. peroxide = 55 per cent. metallic iron), or would SELL MINE, situated in the HARBOUR of VIVERO, on easy terms. Capacity, ten million tons.

Address, "J. S.," 39, Adelaide-road, London, N.W.

BORROWDALE PLUMBAGO AND LEAD MINES COMPANY.

WANTED (immediately), a THOROUGH PRACTICAL and EXPERIENCED MAN, to take the MANAGEMENT of the DRESSING DEPARTMENT at the above Mines. Must be able to lay out the dressing floors, erect machinety, and dial. Permanent engagement. House found.

Application, stating wages required, and giving references, to be sent to—

WILLIAM DIXON, Manager.

WANTED, TEN TONS of SECONDHAND 16 lbs. BRIDGE RAILS, LARGE WATER-WHEEL, and SAW BENCH. State price, delivered at Keswick Railway Station.

Borrowdale, near Keswick, November, 1874.

ASSAYER AND METALLURGIST.

WANTED, in Smelting Works, an ANALYTICAL CHEMIST. One with some experience in Smelting and Assaying Copper, Lead, Silver, Gold, &c., preferred.

Apply by letter, stating full particulars, to "D. G. Y.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a FOREMAN PITMAN, accustomed to SINKING UNDER PUMPS. None but competent men need apply.

Address, "Box No. 5," Tyldesley, near Manchester.

TO MINING AGENTS.

WANTED, ACTIVE EXPERIENCED AGENTS, capable of UNDERTAKING the PRACTICAL MANAGEMENT of LEAD and COPPER MINES at HOME and ABROAD.

Apply, by letter, with full particulars of age, experience, salary required, &c., to Mr. BEWICK, C.E., No. 4, Broad Sanctuary, London, S.W.

WANTED, a GOOD PORTABLE PUMPING AND WINDING ENGINE, NEW or SECONDHAND, about 20-horse power. State maker's name, how long working, where can be seen, and lowest price.

Address, "T. 309," care of Henry Greenwood, Advertising Agent, Liverpool.

WANTED a GOOD SECOND-HAND 45 to 50 inch cylinder CORNISH PUMPING ENGINE, with TWO GOOD BOILERS. Must be in first-class condition.

Particulars and price to be sent to Mr. J. KITTO, Llanidloes, Montgomeryshire.

PARTNER WANTED, in a BRICK, FIRE-BRICK, TILE, and SANITARY PIPE-WORKS.—To Gentlemen of Business Habits, having the command of from £2000 to £3000, this will be found a SAFE and PROFITABLE INVESTMENT.

Full particulars on application to Mr. D. C. DAVIES, Oswestry.

TO CAPITALISTS.

ANY GENTLEMAN having £1000 to LAY OUT would be almost certain to REALISE a FORTUNE in a few years by co-operating with a gentleman of the highest respectability in affixing the necessary WATER POWER MACHINERY to a SILVER-LEAD MINE, which promises to be an unusually good dividend-paying one.

Address, "S. L. M.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

AN ANALYTICAL CHEMIST DESIRES a RE-ENGAGEMENT. Is an Associate of the Royal School of Mines, London, and has had charge of the laboratory at a large ironworks.

Address, "A. R. S. M." 65, Barbican, E.C.

GLONOINITE.

THE NEW, SAFEST, AND MOST POWERFUL EXPLOSIVE OF THE DAY, FOR SALE,

Address, "Argus," care of Davies and Co., Advertising Agents, Finch-lane, Cornhill.

MALABAR GOLD WASHING COMPANY (LIMITED).

Notice is hereby given, that the ORDINARY GENERAL MEETING of the Malabar Gold Washing Company (Limited) will be HELD at the offices of the company, No. 1, Winchester House, Old Broad-street, London, E.C., on THURSDAY, the 3rd December, 1874, at Two o'clock.

The Transfer-books will be closed from the 23rd inst. to the 21st proximo.

By order, SYDNEY A. CORBETT, Secretary.

1, Winchester House, Old Broad-street, London, E.C., Nov. 20, 1874.

RUSSIA COPPER COMPANY (LIMITED).

Notice is hereby given, that the FOURTH ORDINARY GENERAL MEETING of the Russia Copper Company (Limited) will be HELD at the Terminus Hotel, Cannon-street, London, on WEDNESDAY, the 9th day of December, 1874, at Two o'clock precisely.

The Transfer Books of the Company will be closed from the 25th day of November to the 10th day of December.

C. T. MOORE, Secretary.

2, Moorgate-street, London, E.C., Nov. 24th, 1874.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the PERRAN WHEAL VIRGIN MINING COMPANY.—The Registrar of this Court has appointed THURSDAY, the 10th day of December next, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, TO SETTLE the LIST OF CONTRIBUTORIES of the above-named company, now made out and deposited at the said office.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, the 24th day of November, 1874.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the POLCREBO MINING COMPANY.—By direction of His Honor, the Vice-Warden, Notice is hereby given, that on Wednesday, the 9th day of December next, at the Registrar's Office, at Truro, in the county of Cornwall, at Eleven o'clock in the forenoon, this Court will PROCEED to MAKE a CALL of ONE POUND TEN SHILLINGS PER SHARE on all the contributories of the said company, settled on the List of Contributories as present members thereof.

All persons interested therein are entitled to attend at the time and place aforesaid to offer objections to such call.

JOHN HENRY HAMLEY, Official Liquidator.

Dated Stannaries Court Office, Truro, November 26th, 1874.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the GREAT NORTH CARADON SILVER-LEAD AND COPPER MINING COMPANY (LIMITED).—By the direction of His Honor the Vice-Warden, Notice is hereby given, that on Friday, the 11th day of December next, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, this Court will PROCEED to MAKE a CALL of TWO SHILLINGS AND SIXPENCE PER SHARE on all the contributories of the said company, settled on the List of Contributories thereof as present members.

All persons interested therein are entitled to attend at the time and place aforesaid to offer objections to such call.

JOHN HENRY HAMLEY, Official Liquidator.

Dated Stannaries Court Office, Truro, the 25th day of November, 1874.

VALUABLE IRON, TIN, AND COPPER MINES IN WEST CORNWALL FOR SALE.

MR. JOHN MATHEWS WILL SELL, BY AUCTION, at the Western Hotel, Penzance, on Thursday, the 17th day of December next, at Three o'clock in the afternoon, in One Lot, as a going concern, the WHOLE of the MACHINERY and MATERIALS, together with the SEVERAL MINING LEASES or SETTS of the TREBARVAH MINES, situate in the parish of Perranuthnoe, near Marazion.

The MACHINERY comprises the following, namely:—48½ in. cylinder, 7 ft. stroke PUMPING ENGINE, with 12 ton BOILER; 16 in. cylinder, 4 ft. stroke STEAM WHIM, with 8 ton BOILER; cage and wire-rope complete; shears and capstan, with wire-rope; 50 fms. 14 in. pitwork, and 15 fms. 7 in. in engine-shaft, with 10 fms. 12 in. pitwork in Richards' shaft, with 40 fms. flat-rods underground and 12 fms. 13 in. pumps at surface: skip-road in Richards' shaft, with stands, shieves, and shaft tackles at surface, together with a variety of miscellaneous articles. There is also an excellent account-house, together with smiths' shop and carpenters' shop, as well as material, powder, and dressing houses, with extensive copper ore floors.

The whole of the machinery is in first-rate condition, and ready to be set to work at once.

The various levels from the adit to the 60 have been cleared, and 117 tons of copper ore, 1300 tons of white spathose iron ore, and 293 tons of tinstuff have been raised to surface and sold. There is a good lode of copper ore now standing above the 60, west of Richards's shaft, and copper may also be expected in the 50 by driving a few fathoms further west of engine-shaft. There are several other valuable lodes known to exist in the sett.

Any further information may be obtained from Messrs. BRANSON and SON, Solicitors, Sheffield; Mr. S. H. F. COX, St. Columb; of the Auctioneer; or at the offices of Mr. W. TRYTHALL, Solicitor, Penzance.

Dated 16th November, 1874.

LEAD MINE NEAR CARSPHAIRN, STEWARTRY OF KIRKCUDBRIGHT.

TO BE LET, for such number of years as may be agreed upon, from and after Martinmas, 1874,

THE WOODHEAD LEAD MINE,

On the CRAIGENGILLAN ESTATE, situate in the parish of CARSPHAIRN and Stewartry of KIRKCUDBRIGHT.

The mine was opened in 1838, has been wrought ever since, and has yielded a large quantity of lead of the finest quality.

The PLANT, MACHINERY, &c., can be had at a valuation.

JAMES M'CALL, at the Mine, will show the underground workings, as also the plans and sections; and for further particulars application may be made to Mr. ALEXANDER M'CUBBIN, Solicitor, Ayr; or to Mr. THOS. SMITH, Land Steward, Berbeth Mains, Dalmellington, Ayrshire.

Ayr, 20th October, 1874.

TO CAPITALISTS.

FOR SALE,—IN NEW SOUTH WALES,—

1340 ACRES TIN LANDS,—Lode and Stream.
2430 ACRES COPPER LANDS (portions freehold).
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4000 ACRES COAL (inland, on railway line).
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105 ACRES FREEHOLD GOLD DEPOSIT (Brown's Creek).

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ONE PAIR of new 12 in. cylinder WINDING ENGINES.
ONE PAIR ditto, 16½ inch cylinders—very cheap.
TWO 9 in. cylinder PORTABLE ENGINES.
TWO 18 in. cylinder HORIZONTAL ENGINES, very strong.
ONE 18 in. ditto, for hauling.
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TWO 9¼ in. ditto.
ONE 25 in. and ONE 30 in. cylinder HORIZONTAL ENGINES.
ONE FLY WHEEL, 16 ft. diameter, 6½ tons weight.
ONE SINGLE-FLUE BOILER, 18 ft. by 5 ft., all fittings complete.
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COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF F. N. WARDELL, ESQ., H.M. INSPECTOR OF MINES.

NOTICE IS HEREBY GIVEN, that an EXAMINATION for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, will be HELD on the 22nd day of December next, and CANDIDATES INTENDING TO PRESENT THEMSELVES AT SUCH EXAMINATION must, on or before the 1st day of December, notify such intention to the Secretary of the Board of the above-mentioned District, from whom all information as to particulars can be obtained.

By order of the Board,
JOHN R. JEFFERY, Secretary,
5, Piccadilly, Bradford.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF THOMAS BELL, ESQ., H.M. INSPECTOR OF MINES.

NOTICE IS HEREBY GIVEN, that an EXAMINATION for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, will be HELD on the 17th day of December, 1874, and CANDIDATES INTENDING TO PRESENT THEMSELVES AT SUCH EXAMINATION must, on or before the 14th day of December, notify such intention to the Secretary of the Board of the above-mentioned District, from whom all information as to particulars can be obtained.

By order of the Board,
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King-street, Wigan.

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RECOMMENDED BY

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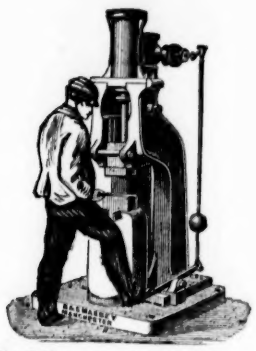

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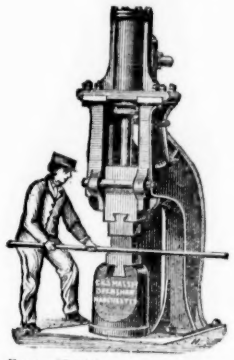

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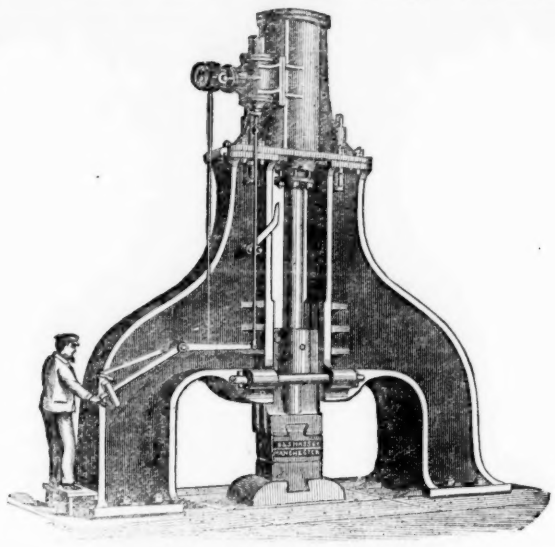

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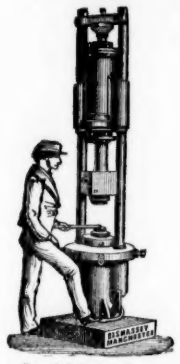

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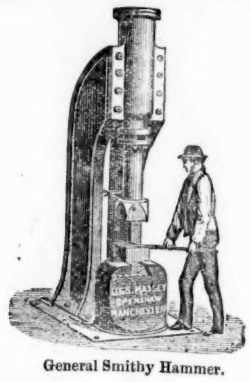

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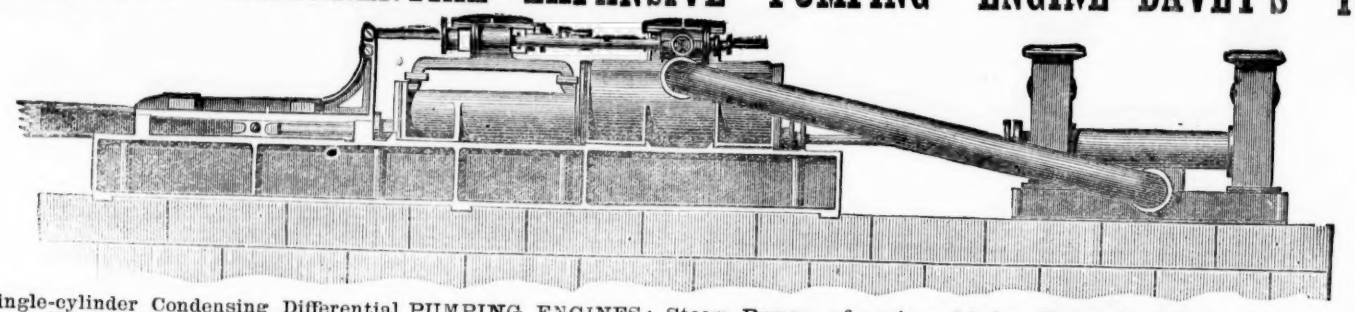

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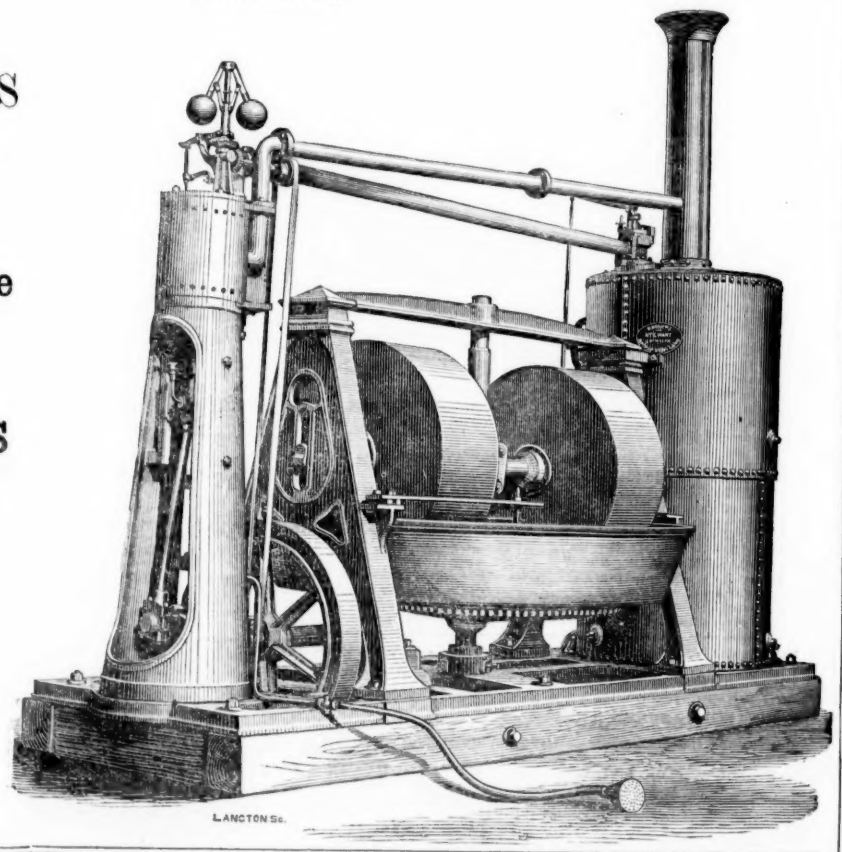

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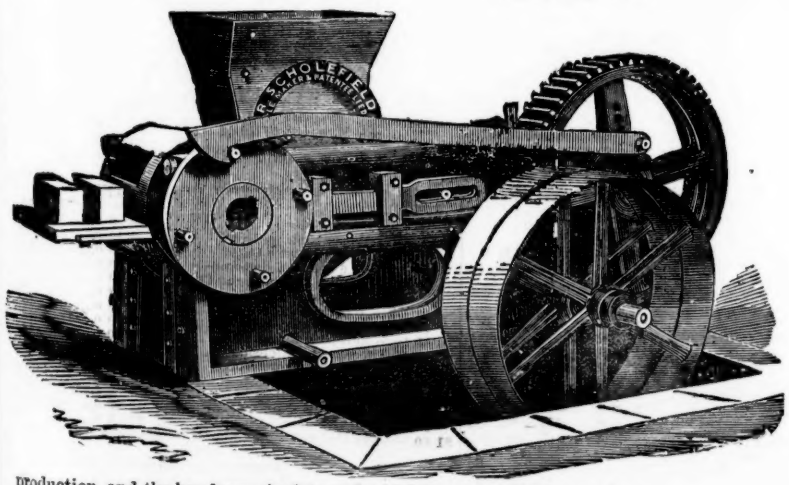

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*** Loans received on Debenture; particulars on application.

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UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
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THE PATENT SELF-ACTING MINERAL DRESSING MACHINE COMPANY (LIMITED).

T. CURRIE GREGORY, C.E., F.G.S.
OFFICES,—150, ST. VINCENT STREET, GLASGOW.

IMPORTANT NOTICE TO MINE PROPRIETORS.

This company grant licenses, under their patents, for the use, singly or in combination, of the most approved machinery for dressing ores, comprising Stamps Jiggers, Classifiers, and Buddles.

MR. GEORGE GREEN, Mechanical Engineer to the above Company, SUPPLIES MACHINES under the above Company's Patents for DRESSING all METALLIC ORES. Dressing floors having these Machines possess the following advantages:—

1.—They are cheaper than any other kind in first outlay.
2.—From 60 to 70 per cent. of the labour is saved.
3.—Only about one-fourth of the space usually occupied by dressing-floors is required.
4.—The ore is made clean at one operation, and 5 per cent. of ores otherwise lost is saved.

Drawings, specifications, and estimates will be forwarded on application to—

GEORGE GREEN, M.E., ABERYSTWITH, SOUTH WALES.

EXTRACTS FROM TESTIMONIALS RECEIVED:—

Mr. C. E. BAINBRIDGE, of the London Company's Mines, Middleton-in-Teesdale, by Darlington, writing on the 27th September, 1873, says—"After a full season's experience of the very complete Dressing Machine erected by you at our Colberry Mines, we are fully satisfied with our decision to adopt your patents in preference to all others. The machinery does its work as well as we can desire, and better than we anticipated. We are now getting through 70 tons of orestuff per day, of rich quality. Without your machinery we should have been at a standstill, for we cannot get hands to supply our wants elsewhere. It saves fully one-half of the old wages, and vastly more on the wages we now give, and the saving in ore is not much short of 10 per cent. You can quote from this letter as you think proper."

Mr. COULTAS DODSWORTH, of Haydon Bridge, writes, on the 15th January, 1874:—"I have just returned from the Stonecroft and Greyside Mines, where I have seen your 'Patent Ore Dressing Machinery' at work, with which I must say, I was highly pleased. It is decidedly the best machinery I have ever seen for the purpose, the results being as near perfection as possible, and I am quite sure its use in this case will be a very great saving to the company. No large mining establishment should be without your machinery, especially when labour is difficult to procure—a mere fraction of the hands being only required as against the old system, and the work altogether much better done, and a great saving of ore effected. I have heard it said that your machinery is better adapted for poor than for rich ores, but from what I have seen to-day I am quite confident it will do for any kind of ores. I beg not only to congratulate, but also to compliment, you on the great success of your 'Patent Ore Dressing Machinery.' You may use this letter as you think proper."

Mr. MONTAGUE BEALE, Managing Director of the Cagliara Mining Company (Limited), says, on May 15th, 1873:—"I have much pleasure in speaking of the great efficiency of your 'Patent Dressing Machinery,' as erected by you at our mines at Rosas, in the Island of Sardinia. You will remember it has always been considered impossible to dress, or rather separate, the minerals our ores contain by machinery, but our captain assures me he gets a constant return of 76 per cent. of lead with the greatest ease, and I know by the returns we are realising the best market price. I consider this company is much indebted to you for the success you have achieved at so small cost. It may interest you to know, from my experience in several of the British possessions, including the whole of the Australian Colonies, that my opinion is I have never seen any dressing machinery that can efficiently, and at so small a cost, dress, and separate metallic ores, however close the mechanical mixture may be, as yours. You can use this letter in any way you like."

The most satisfactory testimonials also have been received from the GREENSIDE MINE COMPANY, Westmoreland: the TALARGOCH MINING COMPANY, North Wales, and others. Copies of these may be had from Mr. GREEN.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
1500	Alderley Edge, c, Cheshire*	10 0 0	—		12 1 8	0 5 0	Apr. 1874
20000	Allt-y-Crib, l, Talybont*	2 0 0	—		0 0 6	0 0 6	Feb. 1873
30000	Bampfylde, c, i, mn., Devon*	1 0 0	5½	4½ 5	0 2 0	0 2 0	June 1873
5500	Blaen Caelan, s-l, Cardigan* (£4 sh.)	3 10 0	—		0 10 9	—	—
200	Botallack, t, c, St. Just§	116 5 0	50	47 48	619 15 0	5 0 0	Aug. 1872
10000	Bronfloyd,*† s-l, Cardigan	1 7 6	—		2 2 0	0 0 6	Jan. 1872
4000	Brookwood, c, Buckfastleigh	1 16 0	5¼	5 5¼	3 2 6	0 4 0	Nov. 1874
3348	Cargoll, s-l, Newlyn§	5 4 5	1¾	1½ 2	4 16 3	0 12 6	Oct. 1872
6400	Cashwell, l, Cumberland*	2 10 0	—		1 6 6	0 2 6	Aug. 1873
1000	Carn Brea, c, t, Illogan†	35 0 0	57½	52½ 55	308 0 0	1 0 0	Feb. 1874
6000	Cath. & Jane, l,* Penrhyndendraeth	5 0 0	—		0 7 6	0 7 6	June 1873
2450	Cook's Kitchen, t, Illogan†§	20 4 9	10	8 9	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†*§	1 0 0	3¾	2½ 2¾	116 10 0	0 12 0	May 1872
4296	Dolcoath, c, t, Camborne	10 14 10	50	49½ 50½	105 4 2	0 10 0	Oct. 1874
6500	Drake Walls, t, c, Calstock	5 0 0	—		0 2 0	0 2 0	July 1874
10000	East Balleswidden, t, Sancreed*	1 0 0	—		0 2 11	0 0 5	Feb. 1874
6144	East Caradon, c, St. Cleer†	2 14 6	1¼	1 1¼	14 19 0	0 2 0	Oct. 1872
300	East Darren, l, Cardiganshire	32 0 0	—		224 10 0	1 0 0	Oct. 1874
6400	East Pool, t, c, Illogan	0 9 9	9	8 9	13 11 3	0 2 6	May 1873
1906	East Wheal Lovell, t, Wendron*‡	5 19 0	11	10 11	20 7 6	0 7 6	Oct. 1874
5000	Exmouth, s-l, Christow	0 7 6	—		0 1 0	0 1 0	May 1873
2800	Foxdale, l, Isle of Man*†	25 0 0	—		80 15 0	0 10 0	Sept. 1872
40000	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1⅝	1⅜ 1⅝	0 5 10	0 1 0	Aug. 1874
15000	Great Laxey, l, Isle of Man*	4 0 0	10¾	10½ 11½	17 3 0	0 6 0	Oct. 1874
25000	Great West Van, t, Cardigan*	2 0 0	1	¾ 1	0 2 0	0 1 0	Aug. 1874
5908	Great Wheal Vor, t, c, Helston†§	40 15 0	—		15 19 6	0 2 6	June 1872
6400	Green Hurth, l, Durham*	0 6 0	5¼	5 5¼	1 12 0	0 4 0	Oct. 1874
20000	Grogwinion, l, Cardigan*	2 0 0	3½	3¼ 3¾	0 0 8	0 0 8	July 1874
10240	Gunnislake (Clitters'), t, c	5 5 0	1¼	1½ 1¾	0 1 0	0 1 0	Nov. 1874
1024	Herodsfoot, l, near Liskeard†	8 10 0	4	3½ 4	62 5 0	0 15 0	Oct. 1872
18000	Hingston Downs, c, Calstock*† (£1 sh.)	2 5 0	1¾	1⅜ 1⅝	4 3 0	0 5 0	Dec. 1872
25000	Killaloe, sl, Tipperary	1 0 0	—		0 3 11½	0 0 6	Mar. 1873
400	Lisburne, l, Cardiganshire	18 15 0	—		564 10 0	1 0 0	July 1874
5120	Lovell, t, Wendron	0 10 0	—		0 17 6	0 1 6	Jan. 1874
11000	Melindur Valley, l, Cardigan*	3 0 0	3¼	3 3¼	0 3 7	0 3 7	June 1874
9000	Minera Mining Co., l, Wrexham*	6 0 0	20	15 20	63 15 2	0 2 0	Nov. 1874
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		0 8 0	0 3 6	July 1872
12000	North Hendre, l, Wales	2 10 0	—		0 17 6	0 2 6	Oct. 1874
2000	North Levant, t, c, St. Just§	12 2 0	5	4 5	4 13 0	0 12 0	Sept. 1873
7000	Old Treburgett,* s-l, ordinary shares	1 0 0	¾	½ ¾	0 0 9	0 0 9	Feb. 1874
9000	Old Treburgett,* s-l (10 per ct. pref.)	0 10 0	⅝	⅜ ⅝	0 0 10½	0 0 10½	Feb. 1874
5694	Pedn-an-drea, t, Redruth§	9 2 0	—		0 5 0	0 5 0	Nov. 1871
5000	Penhalls, t, St. Agnes	3 0 0	1½	1 1½	3 7 0	0 2 0	Oct. 1874
50000	Penstruthal, t, c, Gwennap	2 0 0	⅝	⅝ ¾	0 2 0	0 1 0	Nov. 1874
6000	Phœnix, t, c, Linkinhorne§	4 13 4	4¼	4 4¼	39 19 10	0 4 0	Nov. 1872
1772	Polberro, t, St. Agnes	15 0 0	—		1 12 6	0 5 0	Mar. 1872
18000	Prince Patrick,* s-l, Holywell	1 0 0	3½	3 3½	0 7 0	0 2 0	July 1874
1120	Providence, t, Lelant†§	16 16 7	6	4½ 5	104 12 6	0 10 0	Sept. 1872
2000	Queens, s-l, Holywell*	2 0 0	—		0 2 0	0 2 0	Sept. 1874
12000	Roman Gravels, l, Salop*	7 10 0	14	13 13½	4 2 0	0 8 6	Aug. 1874
10000	Shelton, cl, t, St. Austell	1 0 0	—		0 1 0	0 1 0	Feb. 1872
512	South Caradon, c, St. Cleer	1 5 0	110	120 130	717 0 0	2 0 0	Oct. 1874
5000	South Carn Brea, c, t, Illogan	1 17 6	2⅛	1¾ 2	0 10 0	0 2 6	July 1872
6000	South Darren, l, Cardigan*	3 6 6	—		1 1 6	0 1 6	Nov. 1870
10000	So. Pr. Patrick,* s-l. (8000 sh. issued)	1 0 0	2¾	2½ 2¾	0 2 0	0 2 0	Oct. 1874
8771	St. Just Amalgamated, t*	3 10 0	—		0 9 0	0 4 0	Nov. 1871
12000	Tankerville, l, Salop*	6 0 0	7½	6¾ 7	3 8 0	0 6 0	Feb. 1873
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	31	29½ 30½	47 13 6	0 5 0	Nov. 1874
15000	Tretoil,* t, i, Bodmin	2 0 0	—		0 1 0	0 1 0	Mar. 1874
4000	Trumpet Consols, t, Helston§	7 0 0	1½	¾ 1	9 11 0	0 10 0	Nov. 1872
15000	Van, l, Llanidloes*	4 5 0	23	21 23	13 9 6	0 10 0	Oct. 1874
3000	W. Chiverton, l, Perranzabuloe†§	10 10 0	2¼	2 2½	52 10 0	0 5 0	June 1873
512	West Tolgus, c, Redruth	98 0 0	77½	72½ 75	2 5 0	1 5 0	Oct. 1874
2048	West Wheal Frances, t, Illogan	27 3 9	10	8½ 9½	3 12 6	0 5 0	Oct. 1872
512	Wheal Basset, c, Illogan†	5 2 6	22½	20 22½	638 10 0	1 10 0	Aug. 1872
4295	Wheal Kitty, t, St. Agnes	5 4 6	5½	5 5½	11 17 0	0 2 6	Sept. 1874
896	Wheal Margaret, t, Uny Lelant§	15 17 6	—		82 2 3	0 10 0	May 1872
10000	Wheal Mary, t, St. Dennis*	5 0 0	—		0 1 0	0 1 0	Jan. 1873
80	Wheal Owles, t, St. Just§	76 5 0	95	90 95	522 10 0	4 0 0	Aug. 1872
12000	Wheal Russell, c, Tavistock	1 0 0	—		0 3 3	0 0 6	Nov. 1874
10000	Wheal Whisper, t, c, Warleggan*	1 0 0	—		0 1 6	0 0 6	May 1873
25000	Wicklow, c, sul, i, Wicklow	2 10 0	—		52 9 0	0 2 6	Mar. 1872

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
35500	Alamillos, l, Spain*†	2 0 0	2	1½ 2	1 5 9	0 2 0	Sept. 1874
30000	Almada and Tirito Consol., s*†	1 0 0	¾	⅜ ⅝	0 4 3	0 1 0	May 1873
20000	Australian, c, South Australia†	7 7 6	1¾	1¼ 1¾	0 11 6	0 2 0	July 1873
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Birdseye Creek, g, California*	4 0 0	2¼	2⅛ 2⅜	0 14 0	0 2 6	June 1874
6000	Bensberg, l, Germany*	10 0 0	—		0 17 4	0 8 0	July 1873
12320	Burra Burra,* c, So. Australia	5 0 0	—		56 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	30½	29¼ 30¼	17 15 0	1 0 0	Sept. 1874
40000	Cedar Creek, g, California*	5 0 0	1⅝	1⅝ 1⅞	0 5 0	0 2 6	June 1873
30000	Central American Association*†	0 16 6	—		0 6 0	0 1 0	July 1869
15000	Chicago, s, Utah*	10 0 0	—		0 16 0	0 4 0	Sept. 1873
21000	Colorado Terrible, s-l, Colorado*†	5 0 0	4¼	4 4¼	0 9 6	0 1 6	July 1874
76162	Don Pedro North del Rey*†	0 16 0	½	¼ ½	2 5 9	0 2 0	Mar. 1872
93500	Eberhardt and Aurora, s, Nevada*†	10 0 0	5¼	4¾ 5¼	1 0 0	1 0 0	July 1871
2352	Eldorado, g, Nova Scotia*	10 0 0	—		2 5 0	0 15 0	June 1873
60000	Emma,* g, s, Utah (25,000 fully pd.)	20 0 0	1¾	1 1¼	3 12 0	0 6 0	Dec. 1872
70000	English and Australian, c† S. Aust.	2 10 0	2	1⅞ 2⅛	2 7 3	0 2 6	Mar. 1873
15000	Ferguson, g, California*	2 0 0	—		0 3 0	0 3 0	April 1872
30000	Flagstaff, s, Utah*	10 0 0	1¾	1¾ 2	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	4¾	4½ 5	4 6 10	0 2 6	Sept. 1874
30000	Gold Run, hyd.	1 0 0	⅜	⅛ ⅜	0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	¼	⅛ ¼	0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	1⅛	¾ 1	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	3¾	3¾ 4	14 14 2	0 3 4	Sept. 1874
7837	Lusitanian, Portugal*† (£5 shares)	3 10 0	1¼	¾ 1¼	1 11 6	0 1 6	Mar. 1873
15000	Mammoth Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
18000	Prussian Mining & Ironworks, cl, i.	30 0 0	—		6 0 0	3 0 0	July 1873
10000	Pontgibaud, s-l, France†	20 0 0	21	19 21	15 16 8	0 19 9	June 1874
100000	Port Phillip, g, Clunes*†	1 0 0	1	¾ 1	1 8 0	0 1 0	Jan. 1872
54000	Richmond Consols, s, Nevada*†	5 0 0	7	6½ 6¾	1 16 6	0 5 0	July 1874
120000	Scottish Australian Mining Co.*†	1 0 0	1¾	1½ 1¾	15 per cent.		Nov. 1874
112500	Sierra Buttes, g, California*†	2 0 0	2¼	1⅞ 2⅛	1 8 0	0 2 0	Dec. 1873
60000	South Aurora, s, Nevada*	5 0 0	⅝	½ ⅝	0 14 2	0 2 0	Nov. 1873
15000	Sweetland Creek, g, California*†	4 0 0	3¼	2¾ 3	2 18 0	0 2 0	Sept. 1874
20000	Tolima, g, s* (6000 sh. are £5 f. pd.)	4 0 0	3½	3 3½	0 11 6	0 6 6	May 1874
500	Westphalian, s-l, c, Prussia*	20 0 0	—		54 0 0	20 0 0	Dec. 1873
15000	Western Andes, s* (New Granada)	5 0 0	5½	5 5½	1 13 4	0 10 0	Oct. 1874

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
20000	Anglo-Australian, g, Victoria*	2 10 0	—		Sept. 1872
20000	Australian United, g, Victoria*†	2 10 0	1½	1¼ 1½	Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd.
30000	Blue Tent, hyd., California	5 0 0	5¼	5 5¼	Fully pd.
60000	Braganza, g, Brazil*†	0 15 0	—		Oct. 1870
12000	Camp Floyd, s, Utah*	10 0 0	—		Fully pd.
35000	Cesena Sulphur Company, Romanga, Italy*	10 0 0	—		Fully pd.
50152	Chontales, g, s, Nicaragua*† (and 12,542 of £1 15s.)	2 0 0	½	⅜ ⅝	Fully pd.
6000	Clifton, s, Colorado*	5 0 0	—		Feb. 1872
10000	Crescent, g, Plumas County, California*	10 0 0	—		Fully pd.
100000	Cuiaba, g, Minas Geraes, Brazil*	0 17 6	—		June 1872
10000	Douglas, s, Georgetown, Col.	5 0 0	—		Fully pd.
85000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Dec. 1871
60000	Exchequer, g, s, California*	1 0 0	—		Fully pd.
55000	Frontino and Bolivia, g, New Granada*†	2 0 0	½	⅜ ½	Fully pd.
56000	General Brazilian, g*	1 0 0	—		Fully pd.
10000	Goetzel Tunnel Co., Georgetown, Col.	7 0 0	—		Fully pd.
40000	Holcombe Valley, g,* California	1 0 0	1⅛	1 1¼	July 1873
6000	Hornachos,* s-l, (£10 shares)	9 0 0	—		Jan. 1874
20000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
20000	Independence, g, California*	5 0 0	3	1¼ 1¾	Fully pd.
20000	I. X. L., g, s, California*	5 0 0	—		Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	½	¼ ½	Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 12 6	—		Sept. 1874
65000	London and California, g*†	2 0 0	⅝	⅜ ⅝	Fully pd.
75000	Malabar, g, Colombia* (65000 issued)	1 0 0	¾	½ ¾	Fully pd.
4000	Malaga, l, Spain*	10 0 0	—		Fully pd.
40000	Malpaso, g, Colombia* (10000 pref. shares, 15s. paid)	1 0 0	1	¾ 1	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
14000	Montague & Waverley Gold Quartz Crushing Co.,* N.Scot.	2 0 0	—		Allotment
6000	Monte Loreto, g, c, Italy*	5 0 0	—		Fully pd.
15000	New Pacific, g, s, Nevada*	0 7 6	⅜	⅛ ⅜	Jan. 1874
46000	New Quebrada, c, Venezuela*	5 0 0	3½	3⅛ 3⅜	Fully pd.
60000	New Rosario, s, Mexico*	1 0 0	¾	¼ ¾	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	2¾	2½ 2¾	Fully pd.
10000	Newfoundland,* l	10 0 0	—		Fully pd.
20000	North American, g*	4 0 0	—		Fully pd.
50000	Panulcillo, c, Chili*†	4 0 0	1	¾ 1	Fully pd.
60000	Pestarena United, g, Italy*†	3 0 0	—		Fully pd.
50000	Rica, g, Colombia* (40000 issued)	1 0 0	½	¼ ½	Fully pd.
100000	Rio Tinto,* c, Huelva, Spain	9 0 0	9	8 9	Jan. 1874
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	¼	⅛ ¼	July 1872
32500	Ruby Consolidated, s, Nevada*	10 0 0	—		Fully pd.
30000	Russia, c, Orenburg and Uta*†	10 0 0	2¾	2¼ 2¾	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	—		Fully pd.
60000	Santa Barbara,* g, Brazil (10000 new 10s. sh., 2s. 6d. pd.)	0 9 6	⅞	⅝ ⅞	Mar. 1872
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
37500	Snowdrift, s, Colorado*	2 0 0	—		Fully pd.
£253000	St. John del Rey*† (£5 stock and its multiples can be dealt in)		252½	250 260	"Stock"
23000	St. Lawrence, g,* California	5 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	⅝	¼ ½	Fully pd.
20000	Thornhill Reef, g, Australia*	1 0 0	½	⅛ ⅜	Fully pd.
43174	United Mexican, s, Mexico*†‡	28 7 8	2½	2¼ 2¾	May 1868
14000	Utah, c, s-l, Utah*	5 0 0	⅜	⅛ ⅜	Fully pd.
25000	Victoria (London)*, g, Australia (25,000 sh. 16s. pd.)	1 0 0	⅜	⅛ ⅜	Fully pd.
75000	Yorke Peninsula, c, South Australia	1 0 0	½	¼ ½	Fully pd.
40000	Yorke Peninsula, c, South Australia Preference	1 0 0	—		Fully pd.

§ Have made calls since last dividend was paid.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.
25000	Aberdaunant, l, Llanidloes*	1 0 0	1⅜	1¼ 1⅜
10000	Aberystwith,* s-l, Cardigan	4 0 0	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	1½	1¼ 1½
50000	Ballycummisk,* c, Schull	2 0 0	—	
12000	Bedford Consols, c, Tavistock	1 7 0	—	
12000	Bedford United, c, Tavistock	1 17 6	⅝	½ ⅝
25000	Belstone,* c, Devon (3000 sh. 7s.6d. pd.)	1 0 0	2	1½ 2
5000	Blue Hills, t, c, St. Agnes	2 4 6	—	
15000	Bog, l, Shropshire*	2 0 0	¼	⅛ ⅜
12000	Bowden Hill,* mn	1 0 0	—	
20000	Brynambor, l, Cardigan	1 0 0	—	
30000	Burrow & Butson,* t, c, bl, St. Agnes	1 0 0	—	
20000	Burra Burra,* t, c, bl, Kenwyn	1 0 0	—	
5468	Bwadrain, s-l, Cardigan* (£4 shares)	3 16 0	—	
4896	Bwlch Consols, s-l, Cardigan*‡ (£5 sh.)	4 17 6	—	
12000	Cae Gynon, l, Cardiganshire*†	2 0 0	—	
30000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
600	Carden* (£10 shares)	4 0 0	—	
5584	Carn Camborne, c, t, Camborne	5 3 6	¼	⅛ ¼
10000	Castle Gate, t, St. Colomb*	1 0 0	—	
10000	Cathedral, t, c, Gwennap*	1 10 0	1⅛	⅞ 1⅛
3000	Cefn Brwyno (lim. to £5)	5 0 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
24000	Court Grange, s l, Cardiganshire	0 15 0	⅞	¾ ⅞
24051	Crenver & Abraham*† (25949 sh. £1)	2 0 0	½	¼ ½
15000	Cwm Bychan,* s.l, Montgomery	1 0 0	—	
15000	Cwm Nant Ddu,* l, Montgomery	1 0 0	—	
10000	Cwm Ricket and Maesnant, l, Mont.*	2 11 0	—	
256	Cwmystwith, l, Cardiganshire‡	60 0 0	—	
15000	Deer Park, t, c, Tavistock	2 0 0	—	
7500	Denbighshire Consolidated, l*	3 0 0	3	2½ 3
656	Ding Dong, t, Gulval	49 14 6	—	
12000	Dolwen Consols, l, Cardigan*	1 0 0	—	
10000	Duchy Great Consols, c, Calstock	3 0 0	—	
10000	Dunsley W. Phœnix, t, Linkin.*	2 0 0	—	
15000	Dyliffe,* l, Montgomeryshire	6 0 0	—	
512	East Basset, c, Redruth†‡	73 10 0	11	10 11
800	East Black Craig,* l., Scotland	25 0 0	—	
3000	East Boscaswell, t, St. Just	5 0 0	—	
6000	East Bottle Hill Cons., t, c, Plympton	3 0 0	—	
4000	East Chiverton, l, Perranzabuloe	6 5 0	1⅜	1¼ 1⅜
3000	East Dolcoath, t, Illogan	10 0 0	—	
6000	East Grenville, c, Camborne	7 2 6	½	⅜ ½
4000	East Gunnislake and So. Bedford, c.	13 13 0	—	
50000	East Llangynog, l, Montgomery*	2 0 0	—	
30000	E. Nant-y-mwyn,* l, Brecknockshire	1 0 0	—	
15000	East Van, t, Llanidloes*	5 0 0	1	¾ 1
20000	Elgar,* s-l, Cardiganshire	1 0 0	—	
12800	Excelsior, t, c, Stoke Climsland	0 10 6	—	
5000	Flintshire,* l	6 0 0	—	
12800	Florence and Tonkin United* l.	0 10 0	—	
10000	Franco Consols, t, c*	1 0 0	—	
5000	Frank Mills, l, Christow	4 16 0	⅝	½ ⅝
8000	Fronvellan, l, Mont.* [4000 sh. fy. pd.]	0 15 0	—	
18000	Furze Hill, t, Tavis.*	1 0 0	—	
3950	Gawton, c, Tavistock	3 15 0	⅞	⅝ ⅞
5000	Gem, t, Whitchurch	2 10 0	—	
12500	Gilfach, s-l, Llangadock	2 0 0	—	
10000	Glan Severn, s-l, Flintshire	1 0 0	—	
15000	Gobbett, t, Dartmoor	1 0 0	1⅝	1⅜ 1⅝
12000	Goginan, and Level Newydd, Card., l	1 5 0	—	
7500	Gorsedd and Celyn Level, l, Flint	2 0 0	1½	1 1½
10000	Great Mountain, s-l, Carnarvon*	1 0 0	—	
2000	Great Retallack, s-l, b, Perranzabuloe	3 8 0	—	
4400	Gt. West Chiverton, s-l (8000 shares)	2 10 0	—	
4096	Great Wh. Lovell, t, Wendron	3 4 0	—	
18000	Grosvenor,* l, Halkin	1 0 0	—	
12000	Islay, l, Scotland*	1 0 0	—	
6000	Keswick United, l*	5 0 0	—	
6000	Killifreth, t, Chacewater	1 2 0	—	
50000	Kingston Valley, l, Cornwall	1 0 0	1¼	1⅛ 1¼
12000	Ladywell,* l, Salop	2 10 0	3	2¾ 3
2500	Levant, c, t, St. Just	8 10 0	—	
10000	Llanarmon, Denbigh	2 0 0	—	
20000	Llanidloes Wh. Van,* l, Montgomery	1 0 0	—	
30000	Llanrwst, l, Carnarvon	2 0 0	2½	2¼ 2½
17000	Llywernog, l, Cardiganshire	0 16 0	—	
9000	Marke Valley, c, Caradon*	4 18 6	1⅝	1⅜ 1½
6000	Medlyn Moor, t, Wendron	0 12 10	—	
8000	Mellanear, c, Hayle*	4 0 0	—	
25000	Mount Dalby, s-l, Isle of Man*	1 0 0	—	
6144	Nangiles, t, c, Kea	9 14 0	½	¼ ½
4000	Nanty, l, Montgomeryshire*	1 0 0	—	
2000	Nant y-Ricket,* c, l, Montgom.	5 0 0	—	
10000	New Beldon, l, Northumberland*	1 0 0	—	
8000	New Dolcoath, t, c, Camborne*	3 0 0	1⅛	1 1⅛
4096	New East Lovell, t, Wendron	0 10 0	—	
2000	New Hendra, t, Breage	2 1 0	1	¾ 1
6000	New Hobb's Hill, t, Liskeard*	2 0 0	—	
6400	New Pembroke, t, c, Par Station	5 4 6	⅞	¾ ⅞
5000	New Rosewarne, c, Gwinear	4 12 0	¾	¼ ¾
3000	New Silver Rake, s, l, Flintshire	5 0 0	—	
3200	New South Merllyn, l, Flint*	2 10 0	—	
5000	New St. Blazey,* t, Cornwall	0 17 6	—	
1200	New West Rosewarne, t, Gwinear	8 10 0	1½	1 1½
4000	New Wh. Grylls, t, Perranuthnoe	0 16 6	—	
1200	New Wh. Seton, c, Camborne	36 16 8	⅝	½ ⅝
25000	North Laxey*	2 0 0	—	
20000	North Prince Patrick,* l, Holywell	1 0 0	1¼	1 1¼
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
10000	North Pool, c, Illogan* (Reserve 2500)	2 0 0	½	¼ ½
1000	North Rosewarne, c, Gwinear	6 12 6	2	
8000	North Treleigh Wood, t, Redruth*	1 0 0	1	¾ 1
5936	North Treskerby, c, St. Agnes	3 8 10	1⅛	
2000	Old Batholes,* l, Salop	1 10 0	—	
2500	Old Tincroft, c, t, Illogan*	4 0 0	4¼	4 4¼
4000	Parbola, t, Camborne*	5 0 0	—	5 5¼
16923	Parys Mountain,* c, Anglesea	3 0 0	⅛	¼ ⅜
2000	Penhale Wheal Vor, t, c, Helston*	16 15 0	—	
12000	Pennerley, l, Shropshire*	2 0 0	1¾	1¼ 1½
16000	Perkins Beach, l, Salop*	1 0 0	⅜	¼ ⅜
12000	Plynlimmon, l, Llanidloes*	2 5 0	⅝	⅜ ⅝
1000	Polrose, t, Breage	10 12 6	—	
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
12800	Prince of Wales, c, Calstock‡	1 4 0	½	⅜ ⅝
15000	Rookhope Valley, l, Durham*	4 0 0	—	¼ ⅜
5869	Rosewall Hill and Ransom, t	4 5 0	⅜	¼ ⅜
6000	Rosewarne United, c, t, Gwinear	1 10 0	—	
3000	Russell, s-l, Swymbridge	0 6 0	—	
6123	South Condurrow, t, c, Camborne‡	6 5 6	4¾	4 4¼
512	South Dolcoath, c, t, Redruth	12 5 0	1⅛	1 1⅛
5000	South Great Work, t, St. Hilary	2 14 0	—	
12000	South Kit Hill, t, Callington*	1 0 0	—	
12000	South Lisburne, l, bl, Cardigan*	0 12 6	—	
700	South Margaret, t, Ludgvan	1 10 0	—	
12000	South Phœnix, t, c, Linkinhorne*	1 0 0	—	
18000	South Roman Gravels, l, Salop*	1 10 0	¾	⅝ ⅞
6000	South Roskear, t, c, Camborne	6 0 0	5	4 5
6000	South Tolcarne, t, c, Camborne	0 18 0	⅜	⅛ ⅜
12000	South Van,* l, Montgomeryshire	1 0 0	—	
3000	South Ward, l, Beerferris	3 0 0	1¼	1 1¼
937	South Wheal Crofty, c, Illogan	34 10 10	8¾	9 10
496	South Wh. Frances, c, Illogan†	48 3 9	9	12½ 17½
6000	South Wheal Kitty, t, St. Agnes	0 5 0	—	
4000	St. Agnes Consols, t*	5 0 0	6	5 5¼
14000	St. Blazey t.* (£2 10s. shares)	2 0 0	1½	1¼ 1½
10000	St. David's,* s-l, Holywell	1 0 0	1¼	1 1¼
940	St. Ives Consols, t, St. Ives	12 15 0	7	7 7½
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
16000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
12000	Tamar Consols, s-l, Lifton, Devon	1 0 0	1	¾ 1
3879	Tamar Valley, s-l, Beeralston	1 10 0	—	
6400	Teesdale,* l, Durham	0 5 0	¾	½ ¾
4000	Teign Valley, l, bar., Bridford	1 0 0	—	
3526	Tin Valley, St. Neot	1 13 6	—	
5000	Treleigh Wood, t, Redruth	4 8 0	2	1½ 2
1024	Treleigh Wood United, t, Redruth	1 5 0	¾	½ ¾
547	Trelyon Consols	15 0 0	⅝	½ ⅝
12000	Trethellan, s-l, Crantock*	2 0 0	—	
7500	Tresellyn, t, Altarnun	2 10 0	—	
2800	Trevarrack, t, c, Uny Lelant	4 10 0	2¼	2 2¼
200	Tucker's Downs, Camborne	2 0 0	—	
12000	Tyllwyd,* s-l, Cardigan	1 0 0	1⅜	1¼ 1⅜
6000	Unity Wood, t, c, Kenwyn	3 0 0	⅜	¼ ⅜
20000	Van Consols, l, Llanidloes*	2 10 0	2½	2¼ 2½
1000	Vaughan, s-l, Cardigan	9 0 0	—	
20000	Victoria, t, Perranzabuloe	1 0 0	—	
6000	West Basset, c, Illogan†‡	3 16 8	9	8 8½
20000	West Bryn Celyn,* l, Flintshire	1 0 0	—	
100	West Condurrow, t, c, Camborne	5 0 0	—	
10000	W. Esgair Lle, l, Card.*	2 0 0	2¼	2 2¼
5000	West Godolphin, t, c, Breage	1 10 6	1⅛	1 1⅛
12000	West Goginan,* Cardiganshire	2 0 0	1¼	¾ 1¼
15000	West Great Work, t, Breage*	1 0 0	1¼	1 1¼
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
12000	West Maria & Fortescue, t, c, Lamer.	4 9 0	⅝	⅜ ⅝
50000	West Milwr, s-l, Flint	1 0 0	—	
12000	West Pant-y-Go, s-l, Flint*	1 0 0	—	
3000	West Phœnix, t, Linkinhorne	0 18 0	—	
1403	West Polbreen, t, St. Agnes	3 5 0	—	
10000	West Roskear, t, s-l, bl, c, Camborne	0 2 0	—	
12000	West Tankerville, l, Salop*	3 0 0	⅝	⅜ ⅝
2000	West Wheal Lucy, t, c, Lelant	1 10 6	—	
6000	West Wheal Gorland, t, c	3 14 0	—	
292	West Wheal Seton, c, Camborne†	55 15 0	22½	23 25

NON-DIVIDEND MINES—*Continued.*

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.
6000	Wheal Agar, c, Illogan	10 0 0	1⅛	1 1⅛
5000	Wheal Allen,* s-l	1 0 0	—	
6000	Wheal Argus, t, Sancreed	0 10 0	—	
25000	Wheal Arthur, t, c, Calstock*	1 0 0	—	
741	Wheal Basset and Grylls, t	9 18 6	—	
6000	Wheal Coates, t, St. Agnes	2 0 0	—	
6000	Wheal Crebor, c, Tavistock	4 1 0	1⅛	⅞ 1
8400	Wheal Emma, t, c, Buckfastleigh	1 10 0	—	
5179	Wheal Grenville, c, Camborne*	9 7 6	5⅛	4½ 5
2048	Wheal Jane, t, Kea	2 13 10	4	3¾ 4
12000	Wheal Jewell, c, Marazion	1 1 0	—	
12000	Wh. Mary Hutchings,* t, Plympton	1 11 0	1½	1¼ 1½
3000	Wheal Peevor, t, Redruth	5 7 6	7	6¾ 7¼
6000	Wheal Prussia, t, Redruth	2 0 0	4½	4 4½
10000	Wheal Ruby, t, Ludgvan	1 0 0	—	
4568	Wheal Sparnon, t, Redruth	4 0 0	—	
1000	Wheal Speedwell, t, c, Breage	1 0 0	—	
4096	Wheal Uny, t, c, Redruth	12 9 6	3½	3¼ 3½
6000	Wheal Vincent, t, Alternun	1 11 0	—	
12000	Willoughby, l, Llanrwst	2 10 0	—	
10000	Wye Valley, l, Montgomery*	3 0 0	3⅜	3 3¼
1200	Zennor, t, Cornwall	5 0 0	10¾	10½ 10¾

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.	Price.	
£15	Albion Steel and Wire Co. [L.]	£10 0 0	10¾	10¼ dis.
5	Alltami Colliery Co. [L.]	5 0 0	½ dis.	par
100	Ashbury Co. [L.]	90 0 0	44	34 dis.
10	Bagnall, John, and Sons [L.]	10 0 0	3	2½ dis.
10	Benhar Coal Co. [L.]	10 0 0	4¾	4½ pm.
50	Bilbao Iron Ore Co. [L.]	35 0 0	2¼	2½ pm.
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0	1	1½ pm.
25	Birmingham (Blakeley Hall) Coal and Ironstone Company [L.]	25 0 0		—
—	Ditto 10 p. ct. bonds of £25 each	—	2	2½ pm.
4	Blaen Cwmbach Coal Co. [L.]	4 0 0	par	¾ pm.
50	Blaenavon Iron and Steel Co. [L.]	37 10 0		—
50	Blochairn Iron Co. [L.]	15 0 0		—
100	Bolckow, Vaughan, and Co. [L.]...A	35 0 0	20	20¾ pm.
30	Ditto ditto ...B	30 0 0	18¾	19 pm.
50	Bowling Iron Co. [L.]	50 0 0	25	30 pm.
5	Brynkinalt Collieries [L.]	5 0 0		
50	Britannia Ironworks [L.]	25 0 0		—
50	Brown, Bailey, and Dixon [L.]	40 0 0	25	24 dis.
100	Brown, John, and Co. [L.]	70 0 0	11½	12 pm
100	Cammell and Co. [L.]	80 0 0	6½	6 dis.
20	Cannock and Huntingdon Coal [L.]	2 0 0		—
10	Cardiff & Swansea St. Coal Co. [L.]	4 0 0	⅝	⅜ dis.
10	Cardigan Steel and Wire Co. [L.]	7 10 0	6⅞	6⅝ dis.
10	Central Swedish Iron and Steel [L.]	10 0 0	4	6
5	Chapel House Colliery	5 0 0	½ dis.	par
50	Charlton Iron Co. [L.]	35 0 0	19½	19 dis.
50	Chatterley Iron Co. [L.]	40 0 0	12	11½ dis.
10	Chillington Iron Co. [L.]	10 0 0	6¼	5¾ dis.
1	Clee Hill Colliery Co. [L.]	1 0 0	⅝	½ dis.
10	Consett Iron Co. [L.]	7 10 0	15¾	15¾ pm.
1	Consett Spanish Ore [L.]	1 0 0	¼	⅛ dis.
50	Cooke, William, and Co. [L.]	20 0 0	6⅝	5½ dis.
20	Darlington Iron Co. [L.]	8 0 0	2	1¾ dis.
10	Davis's Merthyr Colliery Co. [L.]	10 0 0		—
50	Davy Brothers [L.]	22 10 0	14¼	14¾ pm.
32	Ebbw Vale Co. [L.]	29 0 0	7	6 dis.
6	Fairbairn Engineering	5 0 0	2½	1½ dis.
10	General Mining Ass. [L.] (£1 returned)	9 0 0	8	10
10	Glasgow Port Washington [L.]	6 0 0	3¾	3½ dis.
20	Great Western Coal Co. [L.]	17 0 0		—
2	Gwyngwillim Colliery Co. [L.]	2 0 0		—
15	Hopkins, Gilkes, and Co. [L.]	10 0 0	3	2½ dis.
10	Ifton Rhyn Colliery Co. [L.]	7 10 0	7¼	6¾ dis.
50	Knowles, Andrew, and Sons [L.]	17 0 0	1	1¼ pm.
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0	½ dis.	par
5	Littledean Woodside Coll. Co. [L.]	5 0 0		—
10	Llangennech Colliery Co. [L.]	10 0 0		—
50	Llynvi, Ogmore, & Tondu Co. [L.]	42 0 0	12	10 dis.
13	Llynvi Valley Col. Co. [L.] 15 p.c. pref.	10 0 0		—
10	Lydney and Wigpool Iron Ore [L.]	7 5 0	2⅛	1½ dis.
10	Marbella Iron Ore Co. [L.]	10 0 0	6	5½ dis.
10	Merry and Cuninghame [L.]	3 10 0	¼ dis.	¼ pm.
6	Mersey Steel and Iron Co. [L.]	5 0 0		—
5	Mold Argoed Colliery Co. [L.]	5 0 0	par	½ pm.
10	Monkland Iron and Coal Co. [L.]	10 0 0	6¼	6 dis.
10	Midland Iron Co. [L.]	5 0 0	5¾	6¼ pm.
4	Mwyndy Iron Ore [L.]	3 10 0	1½	1 dis.
100	Nant-y-Glo and Blaina (8 p. c. pref.)	100 0 0	44	48
10	Neepsend Rolling Mills [L.]	3 0 0	par	⅛ pm.
1	Nerbudda Coal and Iron	0 8 0	¼	⅛ dis.
20	New Sharlston Collieries [L.] Pref.	17 0 0	8½	7½ dis.
10	Newport Abercarn Coal Co. [L.]	5 0 0		—
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0		—
10	Northfield Iron Co. [L.]	6 0 0	1¾	1¼ dis.
35	Palmer's Shipbuilding and Iron [L.]	25 0 0	7	6½ dis.
100	Parkgate Iron Co. [L.]	65 0 0	30	31 pm.
20	Patent Shaft and Axletree [L.]	10 0 0	5¾	6 pm.
20	Pelsall Coal and Iron [L.]	15 0 0	3	1 dis.
50	Phœnix Bessemer Co. [L.]	40 0 0	16	15½ dis.
50	Rhondda Merthyr Coal Co. [L.]	50 0 0	20	25 pm.
50	Rhymney Iron Co. [L.]	50 0 0	38	40
10	Richards and Company [L.]	4 0 0	½	1 pm.
100	Samuel Fox and Co. [L.]	80 0 0	42	44 pm.
100	Sandwell Park Colliery Co. [L.]	100 0 0		—
50	Ditto B.	10 0 0		—
50	Shotts Iron Co. [L.]	50 0 0	27½	28½ pm.
100	Sheepbridge Iron and Coal [L.]	55 0 0	29	29½ pm.
10	Sheffield Forge and Rolling Mill [L.]	2 10 0	⅜	¼ pm.
50	Silkstone & Dodworth Cl. & Iron [L.]	17 0 0	¾	¼ dis.
5	Silkstone Fall Colliery Co. [L.]	5 0 0	3	1 dis.
20	Skerne Ironworks [L.]	20 0 0		—
50	Somorrostro Iron Co. [L.]	50 0 0		—
20	South Wales Coal Co. [L.]	17 0 0		—
100	Staveley Iron and Coal Co. [L.]	60 0 0	59	60 pm.
100	Ditto ditto New	10 0 0	9¾	10¾ pm.
10	Stranton Iron and Steel Co. [L.]	8 0 0		—
20	South Cleveland Ironworks [L.]	20 0 0	10	8 dis.
100	Thames Iron Company	100 0 0		—
7½	Titanic Iron and Steel	5 0 0		—
20	Ulverston Mining Co. [L.]	10 0 0	1	½ dis.
1	United Bituminous Collieries [L.]	1 0 0		—
10	Vancouver Coal [L.]	6 0 0	¾	1¼ pm.
100	Vickers, Sons, and Co. [L.]	100 0 0	35	45 pm.
50	Welsh Ironworks Co. [L.]	50 0 0		—
25	W. Cumberland I. and Steel [L.]	20 0 0	6¼	5¾ dis.
10	West Mostyn Coal [L.] (12 p.c. pref.)	2 0 0		—
10	Whitehaven Iron Co. [L.]	10 0 0		—
100	Wigan and Whiston Coal Co. [L.]	70 0 0		—
100	Wigan Coal and Iron Co. [L.]	75 0 0		—

WAGON COMPANIES.

Shares.	Company.	Paid.	Price.	
10	Birmingham Wagon Co. [L.]	10 0 0	17¾	18¼
20	British Wagon Co. [L.]	10 0 0	4⅜	4⅝ pm.
10	Gloucester Wagon Co. [L.]	10 0 0	4¼	4½ pm.
10	Metropolitan Wagon Co. [L.]	5 0 0	3	3¼ pm.
50	Midland Wagon Co. [L.]	50 0 0	90	91
20	North Central Wagon Co. [L.]	20 0 0	14	15 pm.
10	North of England Wagon Co. [L.]	3 10 0	par.	⅛ pm.
10	Parkgate Wagon Co. [L.]	5 0 0	3⅜	3½ pm.
10	Scottish Wagon Co. [L.]	10 0 0	1	2 pm.
20	Sheffield Wagon Co. [L.]	15 0 0	4½	4¾ pm.
10	Yorkshire Wagon Co. [L.]	10 0 0	4½	5 pm.

TELEGRAPH COMPANIES.

Shares.	Company.	Paid.	Price.	
"St."	Anglo-American	100 0 0	73	74
10	Brazilian Submarine	10 0 0	7	7½
10	Cuba, 10 per cent. preference	2 10 0	5¾	6¼
20	Direct United States Cable	20 0 0	11½	12½
10	Eastern, 6 per cent. debentures	10 0 0	7⅜	7⅝
10	East. Exten., Australia and China	10 0 0	7⅜	7⅝
10	Globe Telegraph and Trust	10 0 0	6¼	6¾
10	Ditto, 6 per cent. preference	10 0 0	9¾	10
10	Great Northern	10 0 0	11	11½
25	Indo-European	25 0 0	17	18
10	Mediterranean Extension	10 0 0	3¾	4¼
10	Ditto, 8 per cent. preference	10 0 0	10½	11
8	Reuters	8 0 0	11	11½
"St."	Submarine	100 0 0	206	211
10	West India and Panama	10 0 0	3⅜	3⅞
20	Western and Brazilian	20 0 0	11¼	11¾
$1000	Western Union, 7 per cent. Mort. Bonds	$1000	102	104

MISCELLANEOUS.

Shares.	Company.	Paid.	Price.	
10	Anglo-Mexican Mint	10 0 0	6	7
25	Copper Miners of Eng. (7 p. c. pref.)	25 0 0	10½	11½
5	Diamond Rock Boring	4 0 0	¼ dis.	¼
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0		—
1	Glaisdale Whinstone Quarry	1 0 0		—
10	Huntington Copper and Sul. Co.	8 0 0	7	6
10	Silber Light (ord. sh.)	10 0 0	8	8½
10	Tharsis Sulphur and Copper Co.	10 0 0	27⅛	27⅜

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl, sla s-l, silver-lead; t, tin; z, zinc.
* Limited Liability Companies; † quoted on the Stock Exchan
‡ have paid dividends.

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